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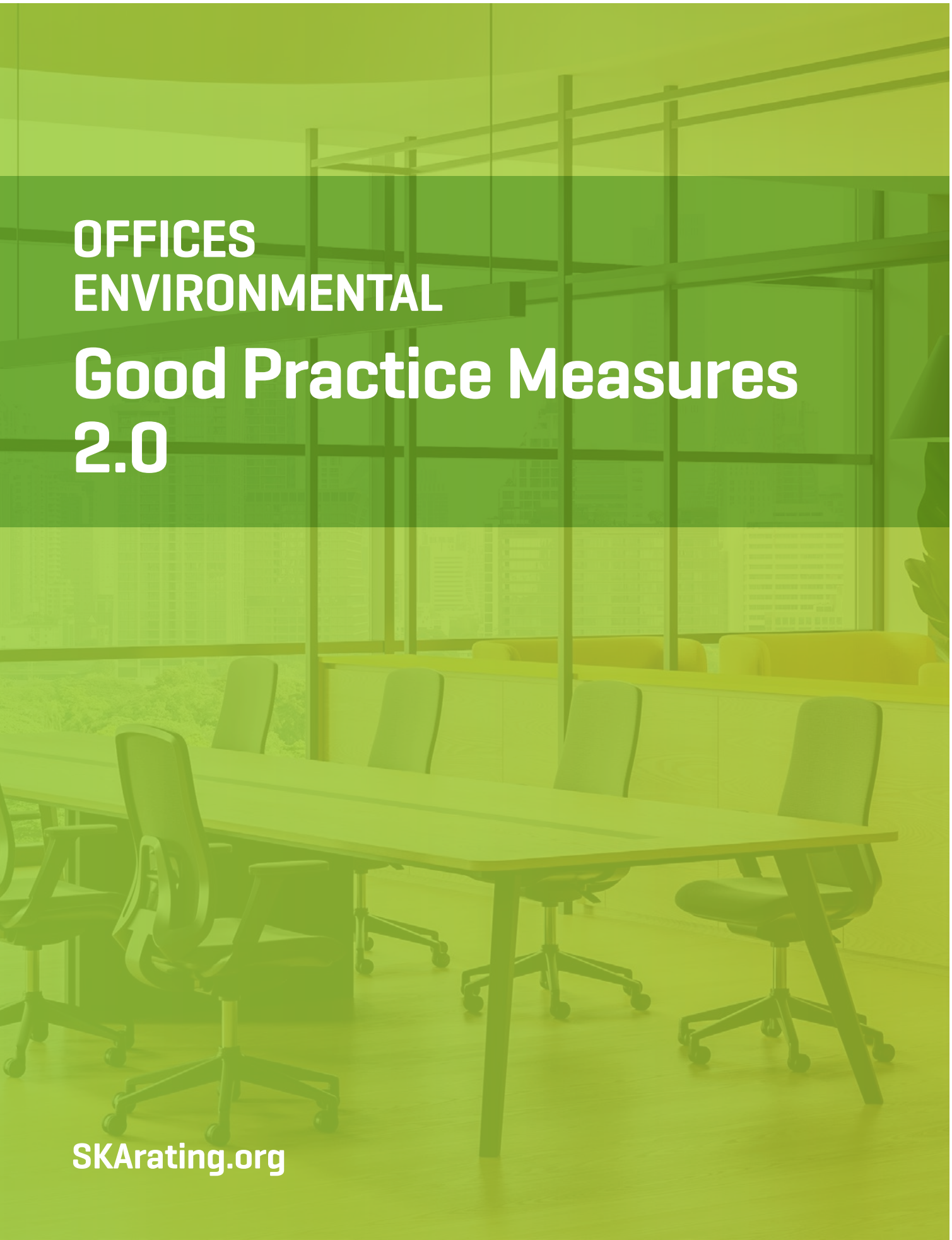

OFFICES ENVIRONMENTAL

Good Practice Measures 2.0

SKArating.org

SKArating Offices Environmental 2.0

SKArating is committed to the continuous development and improvement of the system and all its schemes, and would welcome ongoing feedback on these measures at any time. Please email us comments and suggestions to support@skarating.org

Acknowledgements

All the work undertaken to create this publication has been done by the industry and for the industry, and forms a defining feature of SKArating and our culture.

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Elina Grigoriou	Grigoriou Interiors
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Guidance Notes

Guidance note on the section titles 'Pathway to 2030+'

Each Good Practice Measure has a section titled Pathway to 2030+. The section is intended as a guide for all stakeholders on the intentions for each specific measure and future direction up to 2030 and beyond. This is provided with the current understanding and might be adapted following market adoption or through the provision of enhanced evidence and systemic changes in the industry.

Guidance note on the United Nations Sustainable Development Goals inclusion (UNSDGs)

This section provides links between the globally adopted UN Sustainable Development Goals and the impacts aimed at and expected through each good practice measure. The hope is that these can support understanding and more conscious targeting and planning within the client and project teams, and the wider industry and supply chain.

Net Zero Carbon alignment

The scheme has made every effort to be developed in alignment with the UK Net Zero Carbon Building Standard and various work surrounding this, with the aim of creating carbon limits for interior fit-outs and elements found in typical projects of this nature. Criteria in many measures include a note in brackets 'supports Net Zero alignment' and provides an indicator to clients and teams who are aiming for Net Zero Carbon alignment on a project, which criteria will support their goal. Other criteria that do not note this might also support Net Zero Carbon alignment but will need to be reviewed by project teams more specifically on a case-by-case basis for each project.

Optional Net Zero aligned SKArating certificate

Projects which achieve measures D85 Energy Use Intensity and D90 Embodied Carbon Intensity can submit for a SKArating Net Zero aligned certificate at the project rating achieved (Bronze, Silver or Gold). This certificate is separate and has no official links to any issued through the UK Net Zero Carbon Buildings Standard assessment and certification at the time of issue of this document.

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Timber

Criteria

100% of timber used is from at least one of the following sources:

1. is reclaimed;

Or,

2. where new timber or timber with a recycled content is used, it is supplied with full Chain of Custody (CoC) to site from one of the following forest certification schemes only:
    a. Forest Stewardship Council (FSC)
    b. Programme for the Endorsement of Forest Certification (PEFC);
    c. Grown in Britain (GiB)

Or,

    d. project achieves full FSC or PEFC Project Certification.

Scoping

This measure applies if timber is specified or installed. This includes hardwoods, softwoods, joinery, timber panel products (e.g. MDF, plywood), composite timber, wood veneers in permanent installations and temporary site timber. It also includes all timber found in furniture products, supplied through the main contract or directly procured by the client.

Assessment

At design stage:

1. Where reclaimed or recycled timber is used, obtain verification of their previous or existing use.
2. Where new timber is used,
    - verify it is being sourced from a certified supplier by obtaining their certificate and confirming it meets one of the criteria, and
    - verify there is a request for full CoC to site included in all relevant specifications.

At handover stage: for all installed products and materials check delivery notes (or invoices) for all timber and timber products meet the criteria. All delivery notes or invoices for new or recycled timber and timber products must detail the name and dispatch depot address of the company delivering the timber to the site, quantities, type of product purchased, product claim (min '70% Mix' claim) and state the Chain of Custody reference and certificate number for the delivering company prior to it being installed on site.

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Ecology

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D20

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Timber (continued)

Where a CoC number is missing for the final step in the timber handling chain, comprehensive Category B evidence will be acceptable to claim 'sustainable timber' is used on the project but not to publicly claim that a certified product has been purchased.

An exception can be made for furniture products only, where it can be demonstrated that full chain of custody evidence is supplied up to the storage/consolidation facility prior to the final delivery to site only. Full CoC evidence is to be collated up to the final storage/consolidation facility and the furniture supplier's delivery note confirming all items are delivered from the final storage to the site is to be provided. Both the CoC evidence to the storage and the delivery notes to site are required to evidence compliance. The preference is for all furniture to be delivered to site with a full CoC.

At occupancy stage: if timber has been changed or added then carry out the handover stage assessment. If this measure was achieved at handover stage and timber has not been changed or added, this measure will be achieved by default.

Rationale

The aim is to eliminate the use of uncertified timber in construction/ fit-outs, and consequently to reduce the environmental impact of forestry by ensuring timber originates from sustainable sources. Sourcing reclaimed timber is one of the most sustainable options.

Ideally timber and timber products should be sourced from the nearest forest, as this reduces the CO_2 emissions associated with transport.

Guidance

An 'FSC Mix xx%' or 'xx% PEFC Certified' claim on a delivery note or invoice means that all of the timber within that product is certified to the referenced scheme, but that only the percentage stated (which must be a minimum of 70%) is from a certified forest of that scheme. The remainder will be from well-managed forests, with due diligence on the source carried out by the timber supplier.

Grown in Britain certified timber may be a preference in addition to FSC and/or PEFC.

Forest Stewardship Council UK

PEFC UK

Grown in Britain

Timber Procurement Policy (TPP): prove legality and sustainability - GOV.UK (www.gov.uk)

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Forest certification schemes: Category A evidence - GOV.UK (www.gov.uk)

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

Pathway to 2030+

This measure will keep its aims and criteria steady until responsible timber is normalised. If additional steps are recommended due to global deterioration of forest management then the criteria will be updated to respond.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

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Energy Use Intensity (EUI)

Criteria

The fit out should be designed to achieve the relevant energy use intensity (EUI) targets included in the current UK Net Zero Carbon Buildings Standard (UKNZCBS) for the year that the fit-out project will commence construction.

Where the base build construction has commenced **after 1 January 2025**, the fit-out shall comply with the limits in Table OE-1 of the Annex A of the UKNZCBS.

Where the base build refurbishment has commenced **after 1 January 2025**, the fit-out shall comply with the limits in Table OE-2 of Annex A of the UKNZCBS.

Where the fit-out is being installed in a building that was constructed or refurbished **before 1 January 2025** the fit-out shall achieve the limits in Table OE-3 of Annex A of the UKNZCBS.

The limits apply to the space as-fitted out, and take into account performance of the building fabric and central building services.

For example, in UKNZCBS Pilot Version rev2, Annex A Table OE-3 Existing Building with Stepped Retrofit

New fitout or refurbishment commencement after 1 January

	2025	2026	2027
General office space (including receptions, atria, toilets, circulation etc.)	150 kWh / m² NIA / year	145 kWh / m² NIA / year	140 kWh / m² NIA / year
Call centre space	259 kWh / m² NIA / year	253 kWh / m² NIA / year	247 kWh / m² NIA / year
Trading floors	298 kWh / m² NIA / year	292 kWh / m² NIA / year	284 kWh / m² NIA / year

Energy use intensity forecasts must be calculated as detailed in GPM D66 Energy Modelling otherwise this measure cannot be achieved.

If the assessment is part of a whole building Net Zero Building Standard assessment and there is a commencement year established as part of the wider assessment of works, this can be used instead.

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

D85

Rank

01

Version

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Energy use intensity (continued)

Scoping

This measure is in scope if there are any modifications to energy consuming systems as part of the project.

Assessment

At design stage:

1. Review the energy use intensity calculations and ensure they meet the criteria.
2. Review the details on the base build to confirm which EUI target is applicable.

At handover stage:

1. Review the as-built energy use intensity calculations to ensure they meet the criteria.
2. Review as-built drawings and equipment schedules to ensure they are consistent with the as-built calculations.

At occupancy stage:

1. If this measure was achieved at handover stage, ensure the issues implemented have been retained in occupancy.
2. Measure and report energy consumption during use to demonstrate that the space is meeting performance targets as per the criteria.

Rationale

Reducing energy demand and increasing efficiency is crucial to achieving Net Zero carbon emissions. The energy use intensity (EUI) targets used align with the UK Net Zero Carbon Buildings Standard targets for each year.

Guidance

For more information on operational energy use intensity targets and how to achieve them, please refer to the UK Net Zero Carbon Buildings Standard.

Projects are encouraged to request base-build EUI figures and support data from landlords. This could be in the form of metered energy data, the base build's as-built TM54 assessment, the DEC rating or other sources such as CRREM assessment.

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D85

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Energy use intensity (continued)

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Buildings Standard, which supports the UK Net Zero Carbon Strategy and Climate Change Act. Every future scheme update will be moving the benchmarks in the criteria in line with the annual targets of the UKNZCBS.

This measure is contributing to the following UN SDGs:

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Reduce lighting energy in use

Criteria

The Lighting Energy Numeric Indicator (LENI) calculation shall be based on metered lighting consumption data. Calculations are to be based on one year of metered data for each lighting circuit.

The calculation is as follows:

$$\text{Lighting electricity in use (kWh / m}^2\text{ / year)} = \frac{\text{Annual lighting electricity use (kWh)}}{\text{Net internal floor area (m}^2\text{)}}$$

Scoping

This measure applies to occupancy stage assessments if any of the lighting energy measures (D01, D02 and E04) were included in the scope of the handover stage assessment, regardless of whether sub-metering arrangements allow for the measurement of lighting energy use (see guidance).

If sub-metering does not allow for lighting energy metering, the measure will be in scope but cannot be achieved.

Assessment

At occupancy stage: Take meter readings for the lighting circuit(s) and use the readings taken at the handover stage to calculate the annual lighting electricity consumption in kWh (the difference between the readings). Calculate the lighting electricity use based on the net floor area of the interior space (in m^2).

Rationale

The aim is to encourage the occupant to reduce energy consumption by making performance visible and comparable to industry benchmarks.

Guidance

Further guidance is given in:

- Society for Light and Lighting, Code for Lighting 2022
- Society for Light and Lighting, Lighting Guide 7 2023
- BS EN 15193-1 2017 - Energy Performance of Buildings – Energy requirements for lighting

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

P10

Rank

02

Version

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Reduce lighting energy in use (continued)

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Buildings Standard, which supports the UK Net Zero Carbon Strategy and Climate Change Act.

This measure is contributing to the following UN SDGs:

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Energy & CO_2

ID

P10

Rank

02

Version

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Reduce small power energy in use

Criteria

Annual small power energy use is less than or equal to the tailored benchmark for the relevant type of space. The guideline tables in Section 20.2.1 and 20.3.1 of CIBSE Guide F (2012), shall be used as a minimum to assess specific areas of an office building.

Scoping

This measure applies to all occupancy stage assessments.

Assessment

This measure can only be assessed after a minimum of one year's occupation as the electricity usage has to be measured over a full calendar year (365 days). This accounts for seasonal variations, such as amount of daylight, and occupant behaviour, such as holidays.

At occupancy stage: Take meter readings to quantify the energy use for small power and use the meter readings taken at the handover stage to calculate the annual electricity consumption in kWh (the difference between the readings). Calculate the electricity use based on the net floor area of the interior space (in m^2).

The calculation is as follows:

$$\text{Small power electricity } (kWh/m^2) = \frac{\text{Annual small power electricity use (kWh)}}{\text{Net internal floor area } (m^2)}$$

The tailored benchmark against which the annual consumption must be checked is calculated using the P11 calculator.

Rationale

The aim is to encourage the occupants to reduce energy consumption. The targets set here are based on good practice benchmarks. If the fit-out process has introduced energy efficiency measures, then the impact of these measures should be reflected in reduced annual energy consumption.

Guidance

Ideally the electricity consumption should be measured for the first year of occupation. However, the assessment period can start at any time within the first year of occupation (therefore finishing within the first two years of occupation).

The measure remains in scope even if there are no electricity meters to provide consumption figures. This is because the client has chosen to implement resource-saving measures but has no way to measure

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

P11

Rank

03

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Reduce small power energy in use (continued)

their benefit. As the assessment can be completed at any time during the first two years of occupation, the client has time to install the required meters.

It is not possible to use the energy performance certificate or display energy certificate to measure energy in use for this measure. This is because these certificates cover the performance of the whole building/space. The purpose of this measure is to assess only those elements that were changed during the fit-out process, and to determine whether they have impacted the tenant's or landlord's energy usage.

Benchmarks have been taken from the following documents:

- BCO Guide to Specification, British Council for Offices, 2019.
- Energy efficiency in buildings, Guide F, CIBSE, 2012.

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Buildings Standard, which supports the UK Net Zero Carbon Strategy and the Climate Change Act.

This measure is contributing to the following UN SDGs:

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P11

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03

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Energy efficient lighting

Criteria

Constantly occupied areas – such as office spaces, reception areas, and meeting suites – should maintain a general illuminance of 300 to 500 lux. Front and back of house areas should maintain a general illuminance of 100 lux. All these areas must achieve a Lighting Energy Numeric Indicator (LENI) with a maximum energy consumption per m² that does not exceed the limiting values provided below. The calculation should include the performance of new and reused light fittings.

Operating Hours			Illuminance (lux)			Display lighting
Total	Day	Night	100	300	500	
1000	821	179	0.68	3.96	5.93	2.50
1500	1277	223	0.98	5.10	8.00	3.75
2000	1726	274	1.28	6.26	10.10	5.00
2500	2164	336	1.60	7.43	12.23	6.25
3000	2585	415	1.93	8.64	14.41	7.50
3700	3133	567	2.42	10.42	17.59	9.25
4400	3621	779	2.97	12.33	20.95	11.00
5400	4184	1216	3.87	15.32	26.16	13.50
6400	4547	1853	4.94	18.73	31.99	16.00
8760	4380	4380	8.36	28.89	48.85	21.90

The LENI calculation for the entire installation should be provided in accordance with Appendix B of Building Regulations Approved Document L Volume 2.

The calculation is as follows:

$$\text{Lighting electricity in use (kWh / m}^2\text{)} = \frac{\text{Annual lighting electricity use (kWh)}}{\text{Net internal area (m}^2\text{)}}$$

Scoping

This measure applies if a general lighting system serving at least one area of more than 20m² is being installed or upgraded.

The criteria apply to continuously occupied areas, such as open plan or cellular office spaces, large reception, meeting rooms and communal areas with a general illuminance of 300 to 500 lux.

New and reused light fittings should be included in the calculation.

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Issue

Energy & CO_2

ID

D01

Rank

18

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Energy efficient lighting (continued)

Assessment

At design stage: Check design drawings, specifications and lighting energy calculations to demonstrate the criteria has been met.

At handover stage: Review as-built drawings, and/or carry out a site visit to verify the fittings that have been installed and their locations.

At occupancy stage: If the general lighting layout has been changed, carry out the handover stage assessment. If this measure was achieved at handover stage and the layout has not been changed or added to, this measure will be considered achieved by default.

Rationale

The aim is to encourage the design of energy efficient lighting installations. If the lighting design provides suitable lux levels for the occupants, then it is unlikely it will have changed at the occupancy stage assessment. If light fittings have been repositioned or replaced it is likely the design did not deliver the required lux levels: the new lighting design needs to be checked to ensure that the load still meets the criteria set by this good practice measure.

Guidance

An energy efficient lighting design depends on the lighting levels to be achieved, type of lamp used, the type of luminaire installed and the control regime of the installation, as covered in more detail by Part L of the Building Regulations. Lighting designs should follow the principles laid out in Chapter 7 of the Society of Light and Lighting Code for Lighting 2022.

There is a wide range of lamps with different performances for different applications. The efficacy of a lamp gives an indication of the lamp's efficiency, with a high efficacy indicating a higher light output for a given energy consumption.

To optimise lighting efficiency, luminaires with high Light Output Ratios (LOR) should be used. LOR is a measure of a luminaire's efficiency and should be used to compare the performance of fittings.

Further guidance is given in:

- Society for Light and Lighting Code for Lighting 2022
- Society for Light and Lighting Guide 7 2023

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D01

Rank

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Energy efficient lighting (continued)

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Strategy and the Climate Change Act. It will support decarbonisation, which is one of the most significant contributors to global greenhouse gas emissions.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

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D01

Rank

18

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Energy efficient light fittings

Criteria

All internal and external light fittings (luminaires) meet or exceed the Energy Technology List (ETL) criteria for high efficiency lighting units.

Scoping

This measure applies if new internal or external light fittings are being installed. This includes all:

- Amenity, accent and display light fittings
- General interior light fittings
- Exterior light fittings

This measure only applies to light fittings where the lamp and fitting are integrated (lighting units). It **does not** include light fittings where the lamp and fitting are separate.

Assessment

At design stage: check that written specifications/contracts either state that the equipment must comply with the ETL criteria or for already selected/specified products they provide manufacturer and product details against the ETL criteria demonstrate compliance.

At handover stage: obtain the delivery notes or other similar handover stage evidence that confirms the compliant fittings have been installed. If fittings are selected during the site stage, undertake the design stage assessment before proceeding.

At occupancy stage: if light fittings have been changed or added then carry out the handover stage assessment. If this measure was achieved at handover stage and the fittings have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to encourage the use of energy efficient light fittings.

Guidance

To assess whether luminaires meet the good practice measure, review the performance of the light fitting against the criteria for inclusion in the ETL (available from the ETL website) for 'Efficient White Lighting Units'. The luminaires being installed must meet the requirements outlined in this document.

It is recommended that this is checked and documented by the electrical design engineer or electrical contractor responsible for installing the fittings.

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Issue

Energy & CO_2

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E04

Rank

19

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Energy efficient light fittings (continued)

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Buildings Standard, which supports the UK Net Zero Carbon Strategy and the Climate Change Act.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

E04

Rank

19

Version

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If you would like to comment on this measure please email **support@skarating.org**

Energy efficient heat pumps

Criteria

Heat pumps must be listed on the Energy Technology List (ETL) or meet/exceed the ETL criteria.

Scoping

This measure applies when new heat pumps from any of these categories are being installed:

- packaged air-to-air heat pumps
- air-to-air heat pumps, split systems, multi-split systems and VRF systems
- air-to-water heat pumps
- water- or brine-to-water heat pumps
- heat pump driven air curtains
- air-to-domestic hot water heat pumps
- water-to-air heat pumps.

Assessment

At design stage: check that written specifications/contracts either state that the equipment must be selected from the ETL directory or for already selected/specified products verify the manufacturer and named product is listed on the ETL directory. Where products are not listed on the ETL, review the manufacturers data sheets against the criteria for inclusion in the ETL (available from the ETL website) for heat pump units.

At handover stage: check as-built drawings, O&M files and delivery notes, and/or carry out a site visit to confirm that the installed equipment is the compliant product(s) verified at the design stage assessment.

At occupancy stage: if heat pumps have been changed or added then carry out the handover stage assessment. If this measure was achieved at handover stage and the heat pumps have not been changed or added to, this measure will be considered achieved by default.

Rationale

The aim is to encourage the use of energy efficient heat pumps, if passive approaches are not available. The measure also aims to reduce the long-term global warming impact of heat pumps by using more environmentally friendly refrigerants.

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

E05

Rank

20

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Energy efficient heat pumps (continued)

Guidance

The Energy Technology List (ETL) is an independently operated verification scheme for energy efficient equipment. Products listed on the ETL, or that meet its criteria, are in the top 25% of most efficient products in their category. This helps buildings to reduce their carbon emissions and operating costs. The ETL covers the most commonly used heat pump categories used in fit-out and refurbishment projects.

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Strategy and the Climate Change Act. It supports the elimination of fossil fuels from a building's heating and hot water systems and the transition to energy-efficient technologies.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

E05

Rank

20

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Energy efficient ventilation equipment

Criteria

Heat recovery units in ventilation systems, including air handling units are listed on the Energy Technology List (ETL), or meet/exceed the ETL criteria.

Scoping

This measure applies when new ventilation equipment that supplies outside air is being installed.

This measure applies to:

- plate heat exchangers
- rotating heat exchangers or thermal wheel.

Assessment

At design stage: check that written specifications/contracts either state that the equipment must be selected from the ETL directory or for already selected/specified products verify the manufacturer and named product is listed on the ETL directory. Where products are not listed on the ETL, review the manufacturers data sheets against the criteria for inclusion in the ETL (available from the ETL website) for HVAC equipment or heat recovery ventilation units as applicable.

At handover stage: check as-built drawings, O&M files and delivery notes, and/or carry out a site visit to confirm that the installed equipment is the compliant product(s) verified at the design stage assessment.

At occupancy stage: if heat recovery ventilation units have been changed or added then carry out the handover stage assessment. If this measure was achieved at handover stage and the heat pumps have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to encourage the use of energy efficient heat recovery ventilation units, if passive approaches are not available.

Guidance

The Energy Technology List is an independently operated verification scheme for energy efficient equipment. Products listed on it, or that meet its criteria, are in the top 25% of most efficient products int their category. This helps buildings reduce their carbon emissions and operating costs. The ETL covers the most commonly used HVAC categories used in fit-out and refurbishment projects.

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

E31

Rank

25

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Energy efficient ventilation equipment (continued)

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Strategy and the Climate Change Act. It supports the elimination of fossil fuels from a building's heating and hot water systems and the transition to energy efficient technologies.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

E31

Rank

25

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Energy demand reduction

Criteria

The design team should undertake an options assessment to minimise the operational energy demand of the fit-out and design out energy inefficiency. This should review and test options to use passive and active design strategies to minimise energy consumption, including the following principles as a minimum:

1. Maximising natural light to minimise artificial lighting demand. This should include the use of colour and reflectance of internal materials to maximise daylight availability and efficiency of artificial lighting, as well as the arrangement of space to maximise the use of available natural light.
2. Minimising requirements for space heating and cooling as far as possible. This should include use of window treatments to prevent excessive overheating or cold down draughts at facades; the use of thermal mass to moderate heating and cooling demands; matching occupant density to the thermal capacities of the space; and where feasible, the use of external shading devices.
3. Utilising natural or mixed mode ventilation where possible, including occupancy patterns with the capacity of the building to provide sufficient fresh air.
4. Optimising mechanical and electrical systems to maximise operational efficiency, including selection of highly efficient plant and equipment and the implementation of effective controllability.

The findings of the options assessment should be documented in a report.

Energy consumption should be calculated as detailed in D66 Energy modelling.

Scoping

This measure is only in scope if the client decides to undertake a systemic energy demand reduction study.

Assessment

At design stage: review the energy demand reduction options report to ensure it meets the criteria.

At handover stage: review the as-built drawings and installed equipment to ensure it is consistent with the energy demand reduction report.

At occupancy stage: if this measure was achieved at handover stage, ensure the issues implemented have been retained in occupancy.

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

E29

Rank

34

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Energy demand reduction (continued)

Rationale

Designing out energy consumption requires a collaborative effort between the architects, interior designers, mechanical and electrical engineers, building operators and specialists such as lighting designers and energy assessors. Testing options early in the design process can generate significantly larger energy savings than interventions selected after the design is complete. This measure encourages early testing of options to maximise these opportunities.

Guidance

Suggested Agenda for 'design approach workshop'

Attendees must include (as a minimum):

- FM team representative;
- occupant representative;
- design team engineer;
- design team architect.

Topics to discuss and cover in the options appraisal:

- What is known about current use and performance of the space?
- What does the feedback from current/previous occupants say about space layout, control, etc.?
- Does the existing space have any known issues, e.g. too hot, too cold, too draughty, poor ventilation, too much glare, too dark?
- Can daylight be improved?
- Are there any layouts or strategies that would improve any known issues, e.g. strategically locating areas with high heat gains?
- Can windows be opened or are there any other opportunities for natural ventilation?
- Can the brief be challenged to support more natural ventilation?
- Can internal gains be reduced through equipment selection?
- Can the layout be arranged to make the most of any opportunities, e.g. for offices or meeting spaces, or controls, e.g. daylight dimming, presence/absence detection?
- Can thermal mass be exploited and is it appropriate for the space?
- What opportunities are there to use lower energy methods of ventilation to achieve the requirements of the occupants?
- How does the proposed fit out impact on ventilation and daylight, e.g. do partitions create unwanted issues?
- Can solar gains be reduced e.g. by using shading and/or high-performance glazing?

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

E29

Rank

34

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Energy demand reduction (continued)

- Can a comfort analysis be undertaken to demonstrates that natural ventilation is feasible?
- Is a mixed mode approach more appropriate for winter and/or hot summer days?
- What is the design intent of the base build space?
- What constraints are there on the use of the space, e.g. acoustics, required internal conditions, etc.
- What opportunities are available to reduce environmental impact and improve comfort?
- Does the proposed internal layout of the building maximise the opportunity for daylight and natural ventilation?
- Has an analysis been undertaken by base build designers that demonstrates natural ventilation is feasible?

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Strategy and the Climate Change Act. It supports designing energy efficient spaces to reduce energy demand and carbon emissions.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

E29

Rank

34

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Lighting controllability

Criteria

For all spaces in scope, the following criteria must be achieved:

1. Lighting to be automatically controlled based on occupancy and daylight availability (where spaces have access to daylight)
2. Lighting controls to allow control of perimeter (areas within 2.5x the head height of windows) and central zones.
3. Lighting zones to reflect the layout of the space to ensure circulation, workspace and break out spaces are separately zoned.
4. Meeting rooms and cellular offices to have local automatic controls with manual override to provide occupant control.
5. Controls to:
    - Reduce lighting levels to a maximum of 50% of its normal output in circulation and reception areas when these are not occupied.
    - Automatically adjust lighting levels in response to natural daylight.
    - Include time-based functions to switch off lighting outside of out-of-hours, where appropriate.
6. The lighting controls systems must be fully commissioned at handover to meet the designed control requirements.

Scoping

This measure applies if new lighting is being installed, or existing controls are being replaced.

The criteria apply to lighting in office spaces, corridors, and unoccupied areas such as toilets and storerooms.

Assessment

At design stage: check specifications and drawings meet the criteria.

At handover stage: review as-built drawings, and/or carry out a site visit to verify the installation and locations of the controls. Check lighting controls have been fully commissioned to meet the criteria.

At occupancy stage: if the controls have been changed or added, proceed to the handover stage assessment and take corrective actions to meet the design intent. If this measure was achieved at handover stage and the controls have not been changed or added, this measure will be considered achieved by default.

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

D02

Rank

35

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Lighting controllability (continued)

Rationale

Good practice dictates that lighting should be simply and easily controlled. When new lighting is being installed, the design should incorporate controls that minimise energy usage: lighting should automatically switch off when daylight provides a sufficient level of illuminance and when spaces are unoccupied.

Guidance

An energy-efficient lighting design depends on the type of lamp used, the type of luminaire installed and the control regime of the installation, as detailed in Part L of the Building Regulations and the Society for Light and Lighting Code for Lighting. Lighting controllability along with the ability to provide the right amount of light in the right place at the right time are critical to reducing energy consumption.

Further guidance is given in:

- Society for Light and Lighting Code for Lighting 2022
- Society for Light and Lighting Guide 7 2023

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Strategy and the Climate Change Act. It will support decarbonisation, one of the most significant contributors to global greenhouse gas emissions.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

D02

Rank

35

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Zero carbon energy contracts

Criteria

1. Where the tenant procures electricity for its space it must be supplied either:
   - from a supplier that provides Renewable Energy Guarantee of Origin (REGO) certificates equivalent to the energy consumption of the space, or
   - through a Power Purchase Agreement with a 100% renewable energy generator.
2. Where the tenant procures gas to operate its space, it must be supplied either:
   - with a Renewable Gas Guarantee of Origin (RGGO), or
   - with Biomethane Certificate Scheme (BCS) credits, and in both case equivalent to the volume of gas procured.

Scoping

This measure is in scope when tenants have the ability to procure their own energy supplies for their demise.

Assessment

At occupancy stage: Check the electricity and gas supply contracts to ensure they meet the criteria. Review whether REGO / RGGO / BCS certificates have been obtained in the name of the tenant.

Rationale

The aim is to encourage the procurement of zero carbon energy to operate the tenant spaces.

Guidance

Extensive guidance on the options for zero carbon energy procurement is provided in the UK Green Building Council's Renewable Energy Procurement report series, available from the UK Green Building Council website.

Options for procurement of zero carbon energy will vary from client to client, based on their operations and annual energy requirements.

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

P18

Rank

61

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Zero carbon energy contracts (continued)

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Strategy and the Climate Change Act. It will support the increased rollout of infrastructure scale renewable energy generation across the UK.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

P18

Rank

61

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Energy measurement and reporting

Criteria

1. A system for monitoring, recording and reporting energy consumption within the space is provided. The system should be capable of monitoring the main energy supplies to the space (electricity, gas, hot water, chilled water, steam, etc.) and tracking consumption within the space by different systems (lighting, small power circuits, tenant ventilation, heating and cooling plant, comms rooms, commercial kitchens, etc).
2. Energy monitoring and reporting can be done either via a dedicated energy monitoring and targeting system or Building Energy Management System (BEMS).
3. Metering and monitoring systems must be listed on the Energy Technology List (ETL) or meet the ETL criteria for:
    - Automatic monitoring and targeting sub-metering systems
    - Building energy management systems.

If a BEMS system is used, it does not need to have the ability to control systems to meet this criteria.

Scoping

This measure applies if systems that consume energy are being installed or modified as part of the project.

Where HVAC equipment forms part of central systems controlled by the landlord, these are not in scope for the tenant assessment.

This measure is not in scope where existing compliant metering is provided (either by the landlord or on existing systems)

Assessment

At design stage:

1. Review mechanical, electrical and, where relevant, building management system, specifications and mechanical and electrical schematic drawings to ensure that the appropriate metering and sub-metering is specified.
2. Verify that systems meet ETL criteria or are listed on the ETL and obtain all evidence demonstrating this.

At handover stage:

1. Check as-built drawings, O&M files and delivery notes, and/or carry out a site visit to confirm that the installed equipment is the compliant product(s) verified at the design stage assessment.
2. Check the energy monitoring system is receiving data and is storing and recording information.

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

E08

Rank

68

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Energy measurement and reporting (continued)

At occupancy stage: if the energy monitoring system has been changed or added then proceed to the handover stage assessment. If this measure was achieved at handover stage and the energy monitoring system has not been changed or added, this measure will be considered achieved by default.

Rationale

Monitoring energy usage enables the tenant to identify areas of high consumption. This assists in the development of a carbon management strategy that could provide environmental and economic benefits.

Guidance

Measuring energy consumption can help to identify and correct inefficient use.

Energy consumption and carbon emissions reporting are now required by most office occupiers under both UK and international law, as well as voluntary reporting systems such as Global Reporting Initiative and CDP (the independent environmental disclosure system). This measure will support corporate reporting and transparency.

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Strategy and the Climate Change Act. It supports the elimination of fossil fuels from a building's heating and hot water systems and the transition to more energy efficient technologies.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

E08

Rank

68

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Landlord and tenant collaboration

Criteria

1. A workshop is held between the landlord and tenant to review opportunities for reducing energy consumption and carbon emissions on both the landlord's and tenant's demises for the period of the tenancy, including end of lease dilapidations. The workshop should be undertaken as part of the negotiations on the lease for the space and should be undertaken before the agreement for lease is finalised. The workshop will identify actions that both parties can take to reduce emissions within their respective scopes of work.
2. Opportunities identified are incorporated into either the landlord's or tenant's works to the building and the agreement for lease, with the goal of reducing overall energy consumption.

Scoping

This measure applies to all projects.

Assessment

At design stage:

1. Review meeting minutes and actions from the tenant and landlord energy efficiency workshop.
2. Review scopes of works/agreement to ensure actions are being implemented by the responsible party.

At handover stage:

1. Review meeting minutes and actions from the tenant and landlord energy efficiency workshop.
2. Conduct a site inspection and/or review as-built drawings and specifications to check agreed works were completed.

At occupancy stage: if the agreed measures have changed, carry out the handover stage assessment. If this measure was achieved at handover stage and the layout has not been changed or added to, this measure will be considered achieved by default.

Rationale

The Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015 require landlords of commercial buildings to undertake energy efficiency upgrades as part of leasing property. There is often no dialogue between landlord and tenant as to what those efficiency upgrades are and how they impact on both parties. This measure is aimed at fostering more collaboration between both parties to benefit them during refurbishment and fit-out of buildings.

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

D86

Rank

70

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Landlord and tenant collaboration (continued)

Guidance

Regular dialogue between landlord and tenant can benefit both parties resulting in more efficient operations.

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Buildings Standard, which supports the UK Net Zero Carbon Strategy and Climate Change Act.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

D86

Rank

70

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Energy modelling

Criteria

An operational energy consumption forecast for the spaces within the scope is undertaken in accordance with CIBSE TM54.

- Projects with a construction value of over £2m must use dynamic simulation models for predicting energy consumption.
- Projects with a construction value of <£2m can use either steady state energy calculations or full dynamic simulations.

The energy modelling report should be based on the fit-out design and, where available, base build performance data, and should report the forecast energy use intensity of the space in operation in kWh / m^2 / year.

Scoping

This measure is in scope if there are changes to energy consuming systems.

Assessment

At design stage: review the TM54 operational energy model report to ensure it meets the criteria. Review the design drawings and specifications to ensure they are consistent with the report.

At handover stage: review the as-built drawings and schedules of equipment to ensure consistency with the input parameters used for TM54 report.

At occupancy stage: if this measure was achieved at handover stage, this measure will be considered achieved by default at this stage.

Rationale

Operational energy modelling conducted at design stage can identify where energy is consumed and allow designers and contractors to take steps to reduce operational energy consumption. It can help steer passive design approaches to minimise energy consumption and give building occupants a more realistic assessment of their operational energy, carbon footprints and energy costs.

This measure describes the approach to calculating energy consumption. Measures E29 Energy demand reduction and D85 Energy use intensity describe the design approaches and targets to be achieved.

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

D66

Rank

74

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Energy modelling (continued)

Guidance

Modelling must cover the whole space being fitted out. Where landlord services are being provided to serve the space (e.g. central heating and ventilation plant), allowances for energy consumption based on the landlord's provisions, as outlined in the lease agreement, should be used.

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Strategy and the Climate Change Act. It supports designing energy efficient spaces to reduce energy demand and carbon emissions.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Energy & CO_2

ID

D66

Rank

74

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Healthy internal conditions

Criteria

Internal conditions are designed to meet the following requirements:

- Ventilation rates meet the minimum requirements of CIBSE Guide A.
- Lux levels meet the minimum requirements of the CIBSE Code for Lighting.
- Internal temperatures and comfort conditions are maintained to meet the minimum requirements of CIBSE Guide A.

Scoping

This measure applies where there are modifications to mechanical ventilation, heating, cooling or lighting systems.

Assessment

At design stage: check project brief, design drawings and specifications to demonstrate the criteria has been met.

At handover stage: check as-built drawings, commissioning records and/or carry out a site visit to check the fittings, systems and layouts have been installed in line with the criteria.

At occupancy stage: if the ventilation, heating, cooling or lighting systems have been changed, carry out the design and handover stage assessments. If this measure was achieved at handover stage and the layout or systems have not been changed or added to, this measure will be achieved by default.

Rationale

The rationale of this measure is to ensure that health impacts are considered when designing energy efficient spaces and preventing unintended consequences on occupants, such as ventilation rates that are reduced to the point where they have a negative impact on occupant health and performance.

Guidance

The CIBSE Guides and Codes provide a minimum acceptable level of performance for spaces to ensure they operate effectively, and they do not have a detrimental impact on the health of occupants. The CIBSE guidance also helps ensure compliance with minimum legal requirements captured in the Building Regulations.

Fit-out benchmark & assessment tool

Issue

Environmental Health

ID

D28

Rank

84

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Healthy internal conditions (continued)

Pathway to 2030+

This measure will remain in the scheme and be reviewed in each scheme update to verify it is meeting its objectives or if it requires further action.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Environmental Health

ID

D28

Rank

84

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Embodied Carbon Intensity (ECI)

Criteria

The project is designed and delivered to achieve the Offices reportable works upfront embodied carbon intensity (ECI) limits in line with the UK Net Zero Carbon Buildings Standard, as applicable for the year in which the project commences on site. Example of limits targeted and reported as delivered at handover for the project:

Project commenced **1 January** and any time in the year:

	2025	2026	2027
General office space*	**260** $kgCO_2e$ / m^2 NIA	**250** $kgCO_2e$ / m^2 NIA	**235** $kgCO_2e$ / m^2 NIA

*including receptions, atria, toilets, circulation etc.

Embodied carbon intensity limits must be calculated as detailed in D89 Embodied carbon assessment, otherwise this measure cannot be achieved.

If the assessment is part of a whole building Net Zero Carbon Buildings Standard assessment and there is a commencement year established as part of the wider assessment and works, this can be used instead.

Scoping

This measure is in scope if the client and team decide to target it and claim Net Zero alignment performance for the project.

Assessment

At design stage: review the LCA report to ensure it meets the commencement year limits during RIBA stages 2 and 4. The RICS WLC methodology template must be used for the report required at each stage assessment.

At handover stage: review the Stage 6 handover actuals LCA report and ensure it meets the criteria.

At occupancy stage: if this measure was achieved at handover stage, this measure will be considered achieved by default at this stage.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be measured during a life cycle assessment (LCA). A Whole Life Carbon assessment takes account of environmental impacts over the lifetime of a

Fit-out benchmark & assessment tool

Issue

Materials

ID

D90

Rank

4

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Embodied Carbon Intensity (ECI) (continued)

product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. This measure and the carbon limits align with the UK Net Zero Carbon Buildings Standard and deliver against national goals.

Guidance

For more information on embodied intensity targets and how to achieve them, please refer to the UK Net Zero Carbon Buildings Standard. The limits used are from Annex A, table EC-3: Upfront carbon limits, Reportable works, and include both CAT A and CAT B project works. As most projects include modifications to raised access floor, suspended ceilings and common facilities, and projects being assessed under SKArating include both CAT A and CAT B, the limits have been used as is.

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon. Use the methodology's reporting template to submit stage assessments.

UKGBC Net Zero Whole Life Carbon Roadmap.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

Pathway to 2030+

Changes to this measure are expected to follow the UK Net Zero Carbon Buildings Standard and UK climate change commitments. The aims will be to support the reduction of upfront and WLC impacts and enable alignment with Net Zero aligned carbon limits.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Materials

ID

D90

Rank

4

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Joinery

Criteria

1. All joinery elements and bespoke specialist doors are designed for disassembly and supplied with a disassembly guide.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS).

Or,

3. where new, or a mixture of new and re-used products and materials are added or repairs made, they are compliant with at least one of the following criteria:

   a. for projects over £4M construction budget (optional for smaller budgets) all (new and reused) joinery installations across the project have a total upfront A1-A3 carbon intensity** of 70 $kgCO_2e$ per m^2 of project floor area or lower. (Net Zero aligned approach)

   For smaller projects, criteria options also include one of the following:

   b. are supplied with an environmental product declaration (EPD) written in accordance with ISO 14025 standard (good practice approach).

   c. have been awarded the EU Ecolabel or equivalent label, and each product has an EPD LCA data collection form fully completed (good practice approach).

   d. are certified Cradle to Cradle Certified® Silver or higher certification,

   e. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:

   - at least 60% of content (measured by mass) that is post-consumer recycled, rapidly renewable and natural material e.g. wool, timber, cork, and
   - at least 90% of content (measured by mass) that can be recycled or naturally decompose at end of life, and
   - are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

Fit-out benchmark & assessment tool

Issue

Materials

ID

M06

Rank

8

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Joinery (continued)

And, If not covered already by the above:

f. where plastic parts with a weight ≥50 g shall be visibly marked in accordance with the requirements of EN ISO 11469 or EN ISO 1043 so that polymeric materials can be identified to ensure they are able to be recycled, recovered or disposed of in the correct manner at end of life;

g. where fabric is specified, it must all comply with one of the below:

- Oeko Tex certified
- GreenGuard certified
- Cradle to Cradle® Silver or above certified
- Global Organic Textile Standard (GOTS universal standard for organic fibres)
- Global Recycled Standard
- SMART Sustainable Textile Standard of Silver or above
- Nordic Swan
- EU Ecolabel for textiles

h. where upholstery padding is used all must be CertiPUR®, Blue Angel or equally certified, or made using natural/ rapidly renewable materials.

And,

4. if timber or containing timber elements, the timber meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if joinery elements or bespoke specialist doors are specified or installed.

Assessment

At design stage, for all elements:

1. verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
   - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,

Fit-out benchmark & assessment tool

Issue

Materials

ID

M06

Rank

8

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Joinery (continued)

- collate all Product Circularity Data Sheets (PCDS), and
- verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.

3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage, for all elements:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
   - collate delivery notes or delivery confirmations, and
   - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if elements have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and elements have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of

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If you would like to comment on this measure please email **support@skarating.org**

Joinery (continued)

elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

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If you would like to comment on this measure please email **support@skarating.org**

Kitchen fittings

Criteria

1. All kitchen fittings for tea points, including cupboards, worktops, shelves and carcass (framework), are designed for disassembly and supplied with a disassembly guide.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS),

Or,

3. where new, or a mix of new and reused materials are added or repairs made, they are compliant with at least one of the following criteria;

   a. all (new and reused) kitchen fitting installations across the project have a total upfront A1-A3 carbon intensity** of 70.38 $kgCO_2e$ per m^2 of project floor area or lower (Net Zero aligned approach);

   b. are supplied with an environmental product declaration, written in accordance with ISO 14025 standard, and where it is any one of the product types below it must meet or be less than the upfront A1-A3 carbon functional unit as follows:

      - worktops:
        - synthetic solid surfaces 3.6 $kgCO_2e$ per kg (Net Zero aligned approach)
        - laminated MDF panel: 1.4 $kgCO_2e$ per kg (Net Zero aligned approach)
      - wall covering splashback: comply with measure M13

   c. have a Cradle to Cradle Certified® Silver or higher certificate;

   d. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:

      - at least 60% of content (measured by mass) that is post-consumer recycled, rapidly renewable and natural material e.g. wool, natural rubber, hessian, and
      - at least 90% of content (measured by mass) that can be recycled or naturally decompose at end of life, and
      - are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

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If you would like to comment on this measure please email **support@skarating.org**

Kitchen fittings (continued)

And,

if timber or containing timber elements, in addition to complying with one of the above criteria, the timber also meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if kitchen fittings are installed in tea points and/or commercial kitchens.

Assessment

At design stage:

1 verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
   - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
   - collate all Product Circularity Data Sheets (PCDS), and
   - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
   - collate delivery notes or delivery confirmations, and
   - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

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If you would like to comment on this measure please email **support@skarating.org**

Kitchen fittings (continued)

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

A 'commercial kitchen' is any space used for food preparation by professional caterers, including staff canteens, etc.

A 'tea point' is a food preparation space provided for staff to prepare drinks and food for themselves. Any equipment installed in it usually is of 'domestic' scale.

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

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If you would like to comment on this measure please email **support@skarating.org**

Kitchen fittings (continued)

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

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If you would like to comment on this measure please email **support@skarating.org**

Partitions

Criteria

1. All partitions are designed for disassembly and supplied with a disassembly guide, other than dry lining systems where it is optional.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS),

Or,

3. where new, or a mixture of new and re-used products and systems they are compliant with at least one of the following criteria:

   a) installations of all (new and reused) partition materials in scope have a total upfront A1-A3 carbon intensity** per m^2 of project floor area as follows:

      - solid partition/wall lining installations:14.13 $kgCO_2e$ or lower;
      - glazed partition installations: 16.13 $kgCO_2e$ or lower. (Net Zero aligned approach)

   b) are supplied with an environmental product declaration, written in accordance with ISO 14025 standard, and where it is any one of the product types below it must meet or be less than the upfront A1-A3 carbon functional unit as follows:

      - Fixed boards: 0.24 $kgCO_2e$ per kg
      - Studs/frames: 2.09 $kgCO_2e$ per kg (Net Zero aligned approach)

   c) have a Cradle to Cradle Certified® Silver or higher certificate;

   d) product assembly or systems are manufactured for Circular performance, are supplied with a Product Circularity Data Sheet (PCDS), and are designed:

      - for deconstruction at end of their life,
      - with at least 60% post-consumer recycled, rapidly renewable or otherwise compliant content (measured by mass), and
      - with at least 90% of components that can be recycled at end of life (measured by mass), and

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

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Partitions (continued)

- are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

And,

4. if timber or containing timber elements, in addition to complying with one of the above criteria, the timber also meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies to all interior fit-out space dividing walls and systems that are specified, partially modified or installed. Main product assembly parts are considered the panel material, the inner studs and outer frames. Currently not in scope are items such as packers, cleats, screws, gaskets etc. For clarity, this measure applies where any of the following are in scope; solid and glazed partitions, dry-lining systems, new studs and frames of all materials, single and double glazed screens, framed and frameless systems, free-standing partitions/dividers, movable and openable systems. Glass doors that are part of a partition system are assessed together under this measure.

Assessment

At design stage:

1. Verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
   - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
   - collate all Product Circularity Data Sheets (PCDS), and
   - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

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If you would like to comment on this measure please email **support@skarating.org**

Partitions (continued)

At handover stage:

For all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
   - collate delivery notes or delivery confirmations, and
   - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

A De-Mountable and Re-Locatable modular system can be uninstalled and reused without substantial repair; it should be capable of reinstallation within a tolerance of ± 10mm of the original installed height. Demountable partitions cannot be taken down without damaging or destroying some or all the components.

ASBP Practical Guide for Reuse of Glass Partitioning systems

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

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If you would like to comment on this measure please email **support@skarating.org**

Partitions (continued)

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Chairs - task seating

Criteria

1. All task seating products are designed for disassembly and supplied with a disassembly guide.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied by a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS).

Or,

3. Where new, or a mix of new and reused products are added or repairs made, they are compliant with at least one of the following criteria;

    a. all (new and reused) task seating across the project have a total upfront A1-A3 carbon intensity** of 10.30 $kgCO_2e$ per m^2 of project floor area or lower (Net Zero aligned approach);

    b. are supplied with environmental product declarations, written in accordance with ISO 14025 standard, and where it is any one of the product types below it must meet or be less than the upfront A1-A3 carbon functional unit as follows:

    - 58 $kgCO_2e$ for standard (non-swivel) upholstered meeting chair with 4 legs, sled or cantilever base
    - 62 $kgCO_2e$ for upholstered meeting chair with swivel base (Net Zero aligned approach);

    c. the company manufacturing the products is certified under the Furniture Industry Sustainability Programme SKA (FISP S) scheme;

    d. have been awarded a Business and Institutional Furniture Manufacturers Association (BIFMA) 'level', EU Ecolabel, or equivalent label certification and each product has an LCA data collection form completed; or

    e. have a Cradle to Cradle Certified® Silver or higher certificate;

    f. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:

    - at least 55% of content (measured by mass) that is post-consumer recycled, rapidly renewable and natural material e.g. wool, timber, cork (measured by mass), and
    - at least 95% of content (measured by mass) that can be recycled or naturally decompose at end of life, and

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

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If you would like to comment on this measure please email **support@skarating.org**

Chairs - task seating (continued)

- are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

If not already covered by the above;

g. where plastic parts with a weight ≥50 g are used, they shall be visibly marked in accordance with the requirements of EN ISO 11469 or EN ISO 1043 so that polymeric materials can be identified to ensure they are able to be recycled, recovered or disposed of in the correct manner at end of life;

h. where fabric is specified it must all comply with one of the below:

- Oeko Tex certified
- GreenGuard certified
- Cradle 2 Cradle silver or above certified
- Global Organic Textile Standard (GOTS universal standard for organic fibres)
- Global Recycled Standard
- SMART Sustainable Textile Standard of Silver or above
- Nordic Swan
- EU Ecolabel for textiles

i. where upholstery padding is used all must be CertiPUR ®, Blue Angel or equally certified, or made using natural/ rapidly renewable materials.

And:

4. if timber or containing timber elements, the timber meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if task or meeting chairs are specified or installed. It applies to all procurement routes: ordered and supplied through the main contractor, a subcontractor of the fit-out, or supplied by an occupant/tenant direct supplier. Timber materials are also in scope and must comply with the above embodied impacts, whether the project is also targeting or not Ecology measure D20 Timber.

Assessment

At design stage:

1. verify the disassembly guide is provided for all products or will be

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If you would like to comment on this measure please email **support@skarating.org**

Chairs - task seating (continued)

at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
    - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
    - collate all Product Circularity Data Sheets (PCDS), and
    - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage: for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
    - collate delivery notes or delivery confirmations, and
    - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental

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If you would like to comment on this measure please email **support@skarating.org**

Chairs - task seating (continued)

impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

Definitions:

- A product can be considered to have been reused, refurbished or remanufactured where it is used for its original intended purpose or where the majority of component parts of the product are made into new products without significant reprocessing.
- Refurbishment is when parts of a product are aesthetically or functionally restored or replaced.
- Remanufacturing is a quality-controlled engineering process that returns products to as-new condition by disassembling, checking, repairing or replacing worn parts, resurfacing, reassembling and quality checking.

Disassembly and reassembly for circular solutions means they must not have glued connections, single-use pop studs, push-fit connections or similar irreversible fastenings.

Many suppliers may claim their products contain recyclable components and materials. However, components may be bonded in such a manner to prevent separation and recycling into individual waste streams or local recycling facilities may simply not exist for any given material. Unless a recycling facility can be explicitly identified that is able to reprocess the components and materials at a high level in the value chain, e.g. plastic elements are reprocessed into new furniture and not simply downcycled into plastic bags or other lower value products, it is not acceptable to claim that a product is recyclable. Some suppliers overcome this issue by offering in house take-back and recycling schemes – although not an essential requirement to achieve this measure, the commitment of a supplier to take-back and recycle their products is a good source of evidence to support the claim that a product is recyclable.

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016, Environmental

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If you would like to comment on this measure please email **support@skarating.org**

Chairs - task seating (continued)

Labels and Declarations – Self-declared Environmental Claims. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006.

FISP (S) – Furniture Industry Sustainability Programme has an elevated manufacturer audit that aligns with the SKA criteria. This is identified in their manufacturer certificates with the prefix 'S'.

EUROPUR – European association of flexible polyurethane foam blocks manufacturers.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

European commission – furniture criteria

List of ecolabels on furniture

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

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If you would like to comment on this measure please email **support@skarating.org**

Desks and tables

Criteria

1. All desk and table products are designed for disassembly and supplied with a disassembly guide.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS).

Or,

3. where new, or a mix of new and reused products are added or repairs made, they are compliant with at least one of the following criteria;

   a. all (new and reused) loose desks and tables across the project have a total upfront A1-A3 carbon intensity** of 10.30 $kgCO_2e$ per m^2 of project floor area or lower. (Net Zero aligned approach)

   b. are supplied with an environmental product declaration, written in accordance with ISO 14025 standard, and where it is any one of the product types below it must meet or be less than the upfront A1-A3 carbon functional unit as follows:

      - 73 $kgCO_2e$ for fixed height single table or per position for fixed height bench desks
      - 86 $kgCO_2e$ for electric sit-stand single desk or per position

      Tables have an embodied carbon footprint for lifecycle stages A1 to A3 of less than the above figure for fixed desks pro-rated to the area of the top of the table, assuming the above figure is for a 1600mm x 800mm desk and an 2000mm x 1200mm table.
      (Net Zero aligned approach)

   c. the company manufacturing the products is certified under the Furniture Industry Sustainability Programme SKA (FISP S) scheme,

   d. have been awarded a Business and Institutional Furniture Manufacturers Association (BIFMA) 'level', EU Ecolabel, or equivalent label certification and each product has an LCA data collection form completed; or

   e. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:

      - at least 80% of content (measured by mass) that is post-consumer recycled, rapidly renewable and natural material e.g. wool, timber, cork (measured by mass), AND

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If you would like to comment on this measure please email **support@skarating.org**

Desks and tables (continued)

- at least 95% of content (measured by mass) that can be recycled or naturally decompose at end of life, AND
- are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

f. have a Cradle to Cradle Certified® Silver or higher certificate;

If not covered already by the above;

g where plastic parts with a weight ≥50 g shall be visibly marked in accordance with the requirements of EN ISO 11469 or EN ISO 1043 so that polymeric materials can be identified to ensure they are able to be recycled, recovered or disposed of in the correct manner at end of life;

h. where fabric is specified, it must all comply with one of the below:

- Oeko Tex certified
- GreenGuard certified
- Cradle 2 Cradle silver or above certified
- Global Organic Textile Standard (GOTS universal standard for organic fibres)
- Global Recycled Standard
- SMART Sustainable Textile Standard of Silver or above.
- Nordic Swan
- EU Ecolabel for textiles

i. where upholstery padding is used all must be CertiPUR ® , Blue Angel or equally certified, or made using natural/ rapidly renewable materials.

And:

4. if timber or containing timber elements, the timber meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if loose desks and tables of all types are specified or installed. It applies for all procurement routes: ordered and supplied through the main contractor, a subcontractor of the fit-out, or supplied by an occupant/tenant direct supplier. Timber materials are also in scope and must comply with the above material criteria, whether the project is also targeting or not Ecology measure D20 Timber.

Fit-out benchmark & assessment tool

Issue

Materials

ID

M19

Rank

23

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Desks and tables (continued)

Assessment

At design stage:

1. verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
   - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
   - collate all Product Circularity Data Sheets (PCDS), and
   - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage, for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or close(d)-loop suppliers:
   - collate delivery notes or delivery confirmations, and
   - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be achieved by default.

Fit-out benchmark & assessment tool

Issue

Materials

ID

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Desks and tables (continued)

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

Definitions:

- A product can be considered to have been reused, refurbished or remanufactured where it is used for its original intended purpose or where the majority of component parts of the product are made into new products without significant reprocessing.
- Refurbishment is when parts of a product are aesthetically or functionally restored or replaced.
- Remanufacturing is a quality-controlled engineering process that returns products to as-new condition by disassembling, checking, repairing or replacing worn parts, resurfacing, reassembling and quality checking.

Disassembly and reassembly for circular solutions means they must not have glued connections, single-use pop studs, push-fit connections or similar irreversible fastenings.

Many suppliers may claim their products contain recyclable components and materials. However, components may be bonded in such a manner to prevent separation and recycling into individual waste streams or local recycling facilities may simply not exist for any given material. Unless a recycling facility can be explicitly identified that is able to reprocess the components and materials at a high level in the value chain, e.g. plastic elements are reprocessed into new furniture and not simply downcycled into plastic bags or other lower value products, it is not acceptable to claim that a product is recyclable. Some suppliers overcome this issue by offering in house take-back and recycling schemes – although not an essential requirement to achieve this measure, the commitment of a supplier to take-back and recycle their products is a good source of evidence to support the claim that a product is recyclable.

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

Fit-out benchmark & assessment tool

Issue

Materials

ID

M19

Rank

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Desks and tables (continued)

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016, Environmental Labels and Declarations – Self-declared Environmental Claims. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006.

FISP (S) – Furniture Industry Sustainability Programme has an elevated manufacturer audit that aligns with the SKA criteria. This is identified in their manufacturer certificates with the prefix 'S'.

EUROPUR – European association of flexible polyurethane foam blocks manufacturers.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

European commission – furniture criteria

List of ecolabels on furniture

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Materials

ID

M19

Rank

23

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Ceilings

Criteria

1. All ceilings and ceiling assemblies, panels, grids/frames, and membranes are designed for disassembly and supplied with a disassembly guide.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS),

Or

3. where new, or a mixture of new and re-used materials or systems are added or repairs made, they are compliant with at least one of the following criteria;

    a. all (new and reused) ceiling installations across the project have a total upfront A1-A3 carbon intensity** of 6.00 $kgCO_2e$ per m^2 of floor area or lower. (Net Zero aligned approach)

    b. are supplied with an environmental product declaration, written in accordance with ISO 14025 standard, and where it is any one of the product types below it must meet or be less than the upfront A1-A3 carbon functional unit as follows:

    - metal (without pad) and fibre tiles/plank systems including grid: 3.82 $kgCO_2e$ per kg (Net Zero aligned approach)
    - fixed ceiling boards: 0.24 $kgCO_2e$ per kg (Net Zero aligned approach)
    - ceiling studs/frames (non-accessible system): 2.09 $kgCO_2e$ per kg (Net Zero aligned approach)
    - acoustic panels/baffles: 9.9 $kgCO_2e$ per m^2 (Net Zero aligned approach) or 15.7 $kgCO_2e$ per m^2 (good practice approach).

    c. have a Cradle to Cradle Certified® Certified® Silver or higher certificate;

    d. the product assembly or system (not applicable for suspended tiled products and systems) are manufactured for circular performance, are supplied with a Product Circularity Data Sheet (PCDS), and are designed with:

    - at least 60% (measured by mass), post-consumer recycled, rapidly renewable or otherwise compliant content, and
    - at least 90% (measured by mass) of components that can be re-used or recycled at end of life, and
    - Are manufactured in a factory that has achieved and

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

Fit-out benchmark & assessment tool

Issue

Materials

ID

M10

Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Ceilings (continued)

maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

Where not covered already by the above;

e. If fabrics or containing fabric elements, the products must comply with the criteria for fabrics found in any of the furniture measures M19-M21.

f. If paints or coating elements not already covered in above criteria, the products must comply with the criteria of measure M14 Paints and coatings.

And,

4. if timber or containing timber elements, in addition to complying with one of the above criteria, the timber also meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if suspended ceiling systems, panels or membranes are specified, installed or partly modified. The list below supports clarification of the scoped elements:

- Panels or sheet products:
- Stretched ceiling fabric or membranes
- Natural Fibre (such as recycled newsprint, clay, perlite, starch and fibre glass)
- Timber or composites with timber/renewable panels
- Ceiling tiles or sheet materials such as gypsum
- Combo panels (light + panel + acoustics)
- Metal panels
- Acoustic baffles, rafts and panels
- Suspension system, grid and framing:
- Metal channel frames
- Timber suspension and frames/trims
- Metal strings or hangers

Assessment

At design stage:

1. verify the disassembly guide is provided for all products or will be at the handover stage.

Fit-out benchmark & assessment tool

Issue

Materials

ID

M10

Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Ceilings (continued)

2. For re-used materials/products or closed-loop take-back scheme supplier confirmations:
    - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
    - collate all Product Circularity Data Sheets (PCDS), and
    - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.
4. Verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage: for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.
2. For re-used materials/products or closed-loop suppliers:
    - collate delivery notes or delivery confirmations, and
    - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.
4. Verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Fit-out benchmark & assessment tool

Issue

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ID

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Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Ceilings (continued)

Guidance

A De-Mountable and Re-Locatable modular system can be uninstalled and reused without substantial repair; it should be capable of reinstallation within the original installed parts. Disassembly and reassembly for circular solutions means they must not have glued connections, single-use pop studs, push-fit connections or similar irreversible fastenings.

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Materials

ID

M10

Rank

26

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Raised floor systems

Criteria

1. All raised access floor systems are designed for disassembly and supplied with a disassembly guide.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS),

Or,

3. where new, or a mixture of new and re-used materials are added or repairs made, they are compliant with at least one of the following criteria;
    a. all (new and reused) raised floor system installations across the project have a total upfront A1-A3 carbon intensity** of 2.53 $kgCO_2e$ per m^2 of project floor area or lower (Net Zero aligned approach);
    b. are supplied with an environmental product declaration, written in accordance with ISO 14025 standard, and where it is any one of the product types below it must meet or be less than the upfront A1-A3 carbon functional unit as follows:
        - tiles/panels: 1.1 $kgCO_2e$ per kg (good practice approach)
        - tiles/panels: 0.03 $kgCO_2e$ per kg (Net Zero aligned approach)
    c. have a Cradle to Cradle Certified® Silver or higher certificate;
    d. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:
        - at least 90% of content (measured by mass) is post-consumer recycled, rapidly renewable and natural material e.g. wool, natural rubber, hessian (measured by mass), and
        - at least 90% of content (measured by mass) can be recycled or naturally decompose at end of life, and
        - are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

Fit-out benchmark & assessment tool

Issue

Materials

ID

M07

Rank

29

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Raised floor systems (continued)

And,

4. if timber or contains timber elements, in addition to complying with one of the above criteria, the timber also meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if raised flooring, tiles and supports, is specified and installed.

Assessment

At design stage:

1. verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or close-loop take-back scheme supplier confirmations:
   - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
   - collate all Product Circularity Data Sheets (PCDS), and
   - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage: for all installed products and materials:

1. verify that all the disassembly guides have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
   - collate delivery notes or delivery confirmations, and
   - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

Fit-out benchmark & assessment tool

Issue

Materials

ID

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Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Raised floor systems (continued)

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Raised floor systems (continued)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Materials

ID

M07

Rank

29

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Hard floor covering

Criteria

1. All hard floor coverings, including underlay and fixings where present, are designed for disassembly and supplied with a disassembly guide.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS),

Or,

3. where new, or a mixture of new and re-used materials are added or repairs made, they are compliant with at least one of the following criteria:
    a. all (new and reused) hard floor covering installations across the project have a total upfront A1-A3 carbon intensity** of 4.65 $kgCO_2e$ per m^2 of project floor area or lower (Net Zero aligned approach);
    b. are supplied with an environmental product declaration, written in accordance with ISO 14025 standard, and where it is any one of the product types below it must meet or be less than the upfront A1-A3 carbon functional unit as follows:
        - ceramic tiles/slabs: 11.49 $kgCO_2e$ per m^2 (Net Zero aligned approach)
        - porcelain tiles/slabs: 10 $kgCO_2e$ per m^2 (Net Zero aligned approach), or 14.80 $kgCO_2e$ per m^2 (good practice approach).
        - timber flooring: 6.4 $kgCO_2e$ per m^2 (Net Zero aligned approach) , or 8.5 $kgCO_2e$ per m^2 (good practice approach).
    c. have a Cradle to Cradle Certified® Silver or higher certificate;
    d. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:
        - at least 50% of content (measured by mass) that is post-consumer recycled, rapidly renewable or otherwise compliant content, and
        - at least 90% of content (measured by mass) that can be recycled or naturally decompose at end of life, and

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

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Issue

Materials

ID

M11

Rank

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Version

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If you would like to comment on this measure please email **support@skarating.org**

Hard floor covering (continued)

- are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

And,

4. if timber or containing timber elements, in addition to complying with one of the above criteria, the timber also meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if hard flooring is specified or installed e.g. ceramic, porcelain or composite tiles, timber and any other such rigid materials not covered under M12. Also in scope of this measure are all related fixing materials and products related to the installation of flooring such as underlay, membranes and adhesives.

Assessment

At design stage:

1. Verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
   - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
   - collate all Product Circularity Data Sheets (PCDS), and
   - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage: for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

Fit-out benchmark & assessment tool

Issue

Materials

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Rank

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Version

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If you would like to comment on this measure please email **support@skarating.org**

Hard floor covering (continued)

2. for re-used materials/products or closed-loop suppliers:
    - collate delivery notes or delivery confirmations, and
    - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

Fit-out benchmark & assessment tool

Issue

Materials

ID

M11

Rank

30

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Hard floor covering (continued)

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero c aligned arbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Materials

ID

M11

Rank

30

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Soft floor covering

Criteria

1. All soft floor coverings, including underlay and fixings where present, are designed for disassembly and supplied with a disassembly guide.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS).

Or,

3. where new, or a mixture of new and re-used materials are added or repairs made, they are compliant with at least one of the following criteria;

   a. all (new and reused) soft flooring installations across the project have a total upfront A1-A3 carbon intensity** of 4.65 $kgCO_2e$ per m^2 of project floor area or lower (Net Zero aligned approach);

   b. are supplied with an environmental product declaration, written in accordance with ISO 14025 standard, and where it is any one of the product types below it must meet or be less than the upfront A1-A3 carbon functional unit as follows:

      - carpet tiles including backing: 5.51 $kgCO_2e$ per m^2 (Net Zero aligned approach), or 8.2 $kgCO_2e$ per m^2 (good practice approach).
      - vinyl: sheet 6.69 $kgCO_2e$ per m^2, tiles 9.78 $kgCO_2e$ per m^2
      - linoleum sheet: 4.84 $kgCO_2e$ per m^2 (Net Zero aligned approach)

   c. have a Cradle to Cradle Certified® Silver or higher certificate;

   d. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:

      - at least 90% of content (measured by mass) that is post-consumer recycled, rapidly renewable and natural material e.g. wool, natural rubber, hessian (measured by mass), AND
      - at least 90% of content (measured by mass) that can be recycled or naturally decompose at end of life, AND
      - are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

Fit-out benchmark & assessment tool

Issue

Materials

ID

M12

Rank

31

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Soft floor covering (continued)

And,

4. if timber or containing timber elements, in addition to complying with one of the above criteria, the timber also meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if soft floor coverings such as carpet, vinyl, linoleum, rubber, flexible renewable materials etc are specified or installed. Loose rugs are included in this measure when present. Also in scope of this measure are all related underlay materials whether soft materials or hard boards, and any fixing material and product related to the installation of flooring. Screeds and other self-levelling compounds are assessed under M03 Screeds. Floor paints and seals are assessed under M14 Paints and coatings.

Assessment

At design stage:

1. verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
    - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
    - collate all Product Circularity Data Sheets (PCDS), and
    - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage: for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

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If you would like to comment on this measure please email **support@skarating.org**

Soft floor covering (continued)

2. for re-used materials/products or closed-loop suppliers:
    - collate delivery notes or delivery confirmations, and
    - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations — Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

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Soft floor covering (continued)

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

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If you would like to comment on this measure please email **support@skarating.org**

Hard wall covering

Criteria

1. All hard wall coverings are designed for disassembly and supplied with a disassembly guide, unless installed within 1m of a water source where it is optional.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS),

Or,

3. where new, or a mixture of new and re-used materials are added or repairs made, they are compliant with at least one of the following criteria;

    a. all (new and reused) hard wall covering installations across the project have a total upfront A1-A3 carbon intensity** of 7.04 $kgCO_2e$ per m^2 of project floor area or lower (Net Zero aligned approach);

    b. are supplied with an environmental product declaration, written in accordance with ISO 14025 standard, and where it is one of the product types below it must meet or be less than the upfront A1-A3 carbon functional unit as follows:

    - ceramic tiles/slabs: 11.49 $kgCO_2e$ per m^2 (Net Zero aligned approach)
    - porcelain tiles/slabs: 10 $kgCO_2e$ per m^2 (Net Zero aligned approach), or 14.80 $kgCO_2e$ per m^2 (good practice approach).
    - acoustic panels/baffles: 9.9 $kgCO_2e$ per m^2 (Net Zero aligned approach) , or 15.7 $kgCO_2e$ per m^2 (good practice approach).

    c. have a Cradle to Cradle Certified® Silver or higher certificate;

    d. have an EU Ecolabel

    e. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:

    - at least 50% of content (measured by mass) that is post-consumer recycled, rapidly renewable and natural material e.g. wool, natural rubber, hessian, AND
    - at least 90% of content (measured by mass) that can be recycled or naturally decompose at end of life, AND

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

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If you would like to comment on this measure please email **support@skarating.org**

Hard floor covering (continued)

- are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

And,

4. if timber or containing timber elements, in addition to complying with one of the above criteria, the timber also meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if hard wall covering is specified or installed, as follows:

Ceramic tiles/panels
Porcelain tiles/panels
Concrete tiles
Wall mirrors
Brick slips
Timber panels
Homogenous composite panels / acrylic, plastics etc
Homogenous bio-based materials / panels
Mixed/terrazzo/recycled composite panels /sheets
Acoustic panels / assemblies
Fabric, foam, frames etc upholstered panels
Metal panels and sheets
Glass panels
Natural stone sheets or tiles

Also, in scope of this measure are all related backing materials whether soft materials or hard boards, and any fixing material and product related to the installation of wall coverings such as adhesives and grouting.

Assessment

At design stage:

1. verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
   - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,

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Hard floor covering (continued)

- collate all Product Circularity Data Sheets (PCDS), and
- verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.

3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage: for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
   - collate delivery notes or delivery confirmations, and
   - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

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If you would like to comment on this measure please email **support@skarating.org**

Hard floor covering (continued)

Guidance

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

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If you would like to comment on this measure please email **support@skarating.org**

Storage units

Criteria

1. All storage unit products are designed for disassembly and supplied with a disassembly guide.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS).

Or,

3. where new, or a mix of new and reused products are added or repairs made, they are compliant with at least one of the following criteria;

    a. all (new and reused) loose storage across the project have a total upfront A1-A3 carbon intensity** of 10.30 $kgCO_2e$ per m^2 of project floor area or lower (Net Zero aligned approach);

    b. are supplied with an environmental product declaration, written in accordance with ISO 14025 standard (good practice approach);

    c. the company manufacturing the products is certified under the Furniture Industry Sustainability Programme SKA (FISP S) scheme;

    d. have been awarded a Business and Institutional Furniture Manufacturers Association (BIFMA) 'level', EU Ecolabel, or equivalent label certification and each product has an EPD LCA data collection form completed; or

    e. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:

        - at least 90% of content (measured by mass) that is post-consumer recycled, rapidly renewable and natural material e.g. wool, timber, cork (measured by mass), AND
        - at least 90% of content (measured by mass) that can be recycled or naturally decompose at end of life, AND
        - are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

    f. have a Cradle to Cradle Certified® Silver or higher certificate;

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

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If you would like to comment on this measure please email **support@skarating.org**

Storage units (continued)

If not already covered by the above;

g. where plastic parts with a weight ≥50g are used, they shall be visibly marked in accordance with the requirements of EN ISO 11469 or EN ISO 1043 so that polymeric materials can be identified to ensure they are able to be recycled, recovered or disposed of in the correct manner at end of life;

h. where fabric is specified, it must all comply with one of the below:

- Oeko Tex certified
- GreenGuard certified
- Cradle 2 Cradle silver or above certified
- Global Organic Textile Standard (GOTS universal standard for organic fibres)
- Global Recycled Standard
- SMART Sustainable Textile Standard of Silver or above
- Nordic Swan
- EU Ecolabel for textiles

i. where upholstery padding is used all must be CertiPUR ®, Blue Angel or equally certified, or made using natural/ rapidly renewable materials.

And:

4. if timber or containing timber elements are used, the timber meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if loose storage units of all types are specified or installed. It includes any upholstered elements or other accessories that are combined with the storage function such as pin-boards. It applies for all procurement routes: ordered and supplied through the main contractor, a subcontractor of the fit-out, or supplied by an occupant/tenant direct supplier. Timber materials are also in scope and must comply with the above embodied impacts, whether the project is also targeting or not Ecology measure D20 Timber.

Assessment

At design stage:

1. verify the disassembly guide is provided for all products or will be at the handover stage.

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Storage units (continued)

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
    - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
    - collate all Product Circularity Data Sheets (PCDS), and
    - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage, for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
    - collate delivery notes or delivery confirmations, and
    - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental

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Storage units (continued)

impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

Definitions:

- A product can be considered to have been reused, refurbished or remanufactured where it is used for its original intended purpose or where the majority of component parts of the product are made into new products without significant reprocessing.
- Refurbishment is when parts of a product are aesthetically or functionally restored or replaced.
- Remanufacturing is a quality-controlled engineering process that returns products to as-new condition by disassembling, checking, repairing or replacing worn parts, resurfacing, reassembling and quality checking.

Disassembly and reassembly for circular solutions means they must not have glued connections, single-use pop studs, push-fit connections or similar irreversible fastenings.

Many suppliers may claim their products contain recyclable components and materials. However, components may be bonded in such a manner to prevent separation and recycling into individual waste streams or local recycling facilities may simply not exist for any given material. Unless a recycling facility can be explicitly identified that is able to reprocess the components and materials at a high level in the value chain, e.g. plastic elements are reprocessed into new furniture and not simply downcycled into plastic bags or other lower value products, it is not acceptable to claim that a product is recyclable. Some suppliers overcome this issue by offering in house take-back and recycling schemes – although not an essential requirement to achieve this measure, the commitment of a supplier to take-back and recycle their products is a good source of evidence to support the claim that a product is recyclable.

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term

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Storage units (continued)

'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

FISP (S) – Furniture Industry Sustainability Programme has an elevated manufacturer audit that aligns with the SKA criteria. This is identified in their manufacturer certificates with the prefix 'S'.

EUROPUR - European association of flexible polyurethane foam blocks manufacturers.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

European commission – furniture criteria

List of ecolabels on furniture

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

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If you would like to comment on this measure please email **support@skarating.org**

Light fittings

Criteria

1. All products are installed fully demountable and upgradeable with no damage to luminaire and supplied with a demountability guide.

And,

2. where existing fittings are less than 2 years old, 50% of fittings by quantity are retained.

And,

3. largest product number of fittings in scope, or a minimum of two key luminaire types on the project, are regenerated or re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS),

And,

4. where new, all products are compliant with the following criteria:
    a. are supplied with an Environmental Product Declaration or LCA study written in accordance with ISO 14025 standard, TM65, or TM65.2, and
    b. where products align with one of the listed luminaire types below, they must have a maximum upfront A1-A3 carbon limit as follows:
        - Suspended luminaire: 6 $kgCO_2e$ per unit (Net Zero aligned approach) or 50 $kgCO_2e$ per 1500mm long unit (good practice approach) and allocate pro rata for other lengths
        - Downlights, all types: 13 $kgCO_2e$ per unit (Net Zero aligned approach) or 50 $kgCO_2e$ per unit (good practice approach).

And,

5. for projects over £5m build cost, the below additional circularity criteria apply for the larger luminaire type by quantity or a minimum of three luminaires of varying quantities:
    a. have a Cradle to Cradle Certified® Bronze or higher certificate, or
    b. are manufactured for Circular performance and undertaken a circularity assessment according to TM66.

Scoping

Any new and reused (relocated or adapted) architectural and integrated light fitting as listed below is in scope:

- pendant / hanging / suspended light fittings / track systems

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If you would like to comment on this measure please email **support@skarating.org**

Light fittings (continued)

- surface mounted ceiling light fittings
- downlights / recessed ceiling light fittings
- surface mounted and recessed wall lights
- pole mounted

This measure includes luminaires with integrated light sources that are fixed to/on/from ceilings, walls or pole lights. Refer to measure M33 Decorative and other light fittings for decorative and non-integrated light fittings.

Assessment

At design stage:

1. verify a demountability guide is provided for all products or will be at the handover stage.
2. Where luminaires are installed less than 2 years, confirm dates from O&M manual information and verify retained quantities from lighting plans or other similar specification documents or scope of works.
3. For re-used/repurposed products or closed-loop take-back scheme suppliers:
   - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, drawings or specifications including re-use, or
   - take-back scheme agreement and scheme details, and
   - verify sources and quantities in the project's RMPT and/or in the pre-refurbishment audit.
4. For regenerated/remanufactured luminaires, the below evidence from manufacturers must all be provided:
   - Life Cycle Assessment (LCA) (Minimum stages A1-A3 to TM65.2 or similar alternative) has been undertaken to demonstrate environmental impact of new components and material saved from existing luminaires.
   - breakdown of components retained, removed and new.
   - drawing/sketch showing components retained and new, and how components integrate with each other, and
   - collate all Product Circularity Data Sheets (PCDS) where LCA studies do not provide these details.
5. For all new products, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

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If you would like to comment on this measure please email **support@skarating.org**

Light fittings (continued)

6. For projects over £5m, check specifications explicitly reference or meet one of the circularity criteria and collate relevant evidence.

At handover stage, for all installed products:

1. verify that all the demountability guides and PCDS have been provided and given to the client.
2. For re-used products or closed-loop suppliers:
   - collate delivery notes or delivery confirmations, and
   - verify re-use in the project's final RMPT.
3. For new products collate delivery notes or invoices showing the compliant products.

At occupancy stage: if products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon. Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all elements with the total m^2 project floor area.

UKGBC Net Zero Whole Life Carbon Roadmap.

CIBSE TM65 Embodied carbon in building services: a calculation methodology

CIBSE TM65.2 Embodied carbon in building services: lighting

CIBSE TM66 Creating a circular economy in the lighting industry (2021)

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If you would like to comment on this measure please email **support@skarating.org**

Light fittings (continued)

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Green Lighting Alliance

Greenlight Alliance Incubator LCA benchmarks

Recolight Scheme

Maintain / Prolong: where existing fitting retention is promoted, it is assumed fixtures are LED and meet minimum legislative energy efficiency targets set by Part L.

Reused and Regenerated: products can be from another site, a second-hand source or manufacturer stock.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects. All light fixtures (New, refurbished, second hand and remanufactured) to come with a 5-year warranty and where applicable a 1-year battery.

This measure is contributing to the following UN SDGs:

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If you would like to comment on this measure please email **support@skarating.org**

Doors

Criteria

1. All doors are supplied with asset tags or labels which track their specification and performance in the asset management system.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS).

Or,

3. where new, or a mixture of new and reused doors are added or new materials for repairs made, they are compliant with at least one of the following criteria;

    a. all (new and reused) doorset installations across the project have a total upfront A1-A3 carbon intensity** of 2.85 $kgCO_2e$ per m^2 of floor area or lower. (Net Zero aligned approach)

    b. are supplied with an environmental product declaration, written in accordance with ISO 14025 standard, and where it is any one of the doorset types below it must meet or be less than the upfront A1-A3 carbon functional unit as follows:

    - fire rated timber frame and door: 125 $kgCO_2e$ / single door set or 61.75 $kgCO_2e$ /m^2
    - fire rated metal frame and door: 207.8 $kgCO_2e$ / single door set
    - acoustic rated timber frame and door: 102.612 $kgCO_2e$ / single door set or 50.7 $kgCO_2e$ /m^2
    - aluminium frame single-glazed door: 175.8 $kgCO_2e$ / single door set or 87.9 $kgCO_2e$ /m^2
    - aluminium frame double-glazed door: 89.57 $kgCO_2e$ / single door set
    - timber frame single-glazed door: 111.53 $kgCO_2e$ / single door set
    - timber frame double-glazed door: 115.41 $kgCO_2e$ / single door set
    - steel frame glass door: 289.61 $kgCO_2e$ / single door set
    - metal frame and timber door: 84.57 $kgCO_2e$ / single door set
    - aluminium frame and timber door: 138.94 $kgCO_2e$ / single

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

Fit-out benchmark & assessment tool

Issue

Materials

ID

M17

Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Doors (continued)

door set

Use the above units' pro-rata for different door sizes. (Net Zero aligned approach)

c. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:

- at least 60% of content (measured by mass) is post-consumer recycled or rapidly renewable natural materials, e.g. timber, and
- at least 90% of content (measured by mass) can be recycled or naturally decompose at end of life, and
- are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

And,

4. where timber-based elements, the timber also meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if standard doors (classified as performance or non-performance) are specified or installed, including frames and ironmongery. Bespoke specialist doors to be assessed under M06 Joinery measure. Scoping of door sets does not include door closers or security closers and access readers.

Assessment

At design stage:

1. verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:

- collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
- collate all Product Circularity Data Sheets (PCDS), and
- verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.

If you would like to comment on this measure please email **support@skarating.org**

Doors (continued)

3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage: for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
   - collate delivery notes or delivery confirmations, and
   - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

Fit-out benchmark & assessment tool

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Doors (continued)

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Materials

ID

M17

Rank

47

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Insulation

Criteria

1. All insulation materials are installed for disassembly (removal) and supplied with a disassembly guide.

And, comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS),
3. where new materials are added or repairs made, they are compliant with at least one of the following criteria:
   a) are supplied with an environmental product declaration, written in accordance with ISO 14025 standard;
   b) have a Cradle to Cradle Certified® Silver or higher certificate;
   c) are a Natureplus labelled product;
   d) are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:
      - at least 50% of content (measured by mass) that is post-consumer recycled, rapidly renewable or natural material e.g. hemp, flax, newspaper, wool (measured by mass), and
      - at least 90% of content (measured by mass) that can be recycled or naturally decompose at end of life, and
      - are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

And,

4. if timber or containing timber elements, in addition to complying with one of the above criteria, the timber also meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if new or reused insulation (for all fire, thermal or acoustic related applications) is specified or installed in the building fabric, in joints, in and under floors, in and behind linings, in and above ceilings, in partitions and around building services.

Where an instance of complying with fire safety conflicts with the above criteria, the instance can be removed from the assessment scope.

Fit-out benchmark & assessment tool

Issue

Materials

ID

M04

Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Insulation (continued)

Assessment

At design stage:

1. Verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
    - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
    - collate all Product Circularity Data Sheets (PCDS), and
    - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

At handover stage for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
    - collate delivery notes or delivery confirmations, and
    - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

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If you would like to comment on this measure please email **support@skarating.org**

Insulation (continued)

Guidance

Products that are renewable materials include some of the following:

Animal:
- sheep's wool;
- goat hair;
- bird feather, etc.

Wood and wood derived:
- wood fibre;
- cork;
- cellulose fibre;
- cellulose flake;
- recycled newspaper, etc.

Plant fibre:
- flax;
- hemp;
- straw;
- cotton, etc.

Mixed:
- aerated hemp-crete;
- hemp-lime;
- paper-crete, etc.

It has been suggested that basalt (the material used to make rock mineral wool) could be considered a renewable material as the rock source is replenished by volcanic activity and is a very common material. However, at this stage SKArating does not deem this acceptable as a definition of a 'renewable' material. This is because the rock is not replenished at the site from which it is extracted.

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Insulation (continued)

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Materials

ID

M04

Rank

48

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Chairs - soft seating

Criteria

1. All soft seating products are designed for disassembly and supplied with a disassembly guide.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases are supplied with a Product Circularity Data Sheet (PCDS).

Or,

3. where new, or a mix of new and reused products are added or repairs made, they are compliant with at least one of the following criteria;

   a. all (new and reused) loose soft seating across the project have a total upfront A1-A3 carbon intensity** of 10.30 $kgCO_2e$ per m^2 of project floor area or lower (Net Zero aligned approach);

   b. are supplied with an environmental product declaration, written in accordance with ISO 14025 standard, and where it is any one of the product types below it must meet or be less than the upfront A1-A3 carbon functional unit as follows:

      - 62 $kgCO_2e$ per unit for a 2-seat sofa

        Proportionally adjusted carbon emissions per unit of soft seating seats based on the 2-seat sofa figure above. (Net Zero aligned approach);

   c. the company manufacturing the products is certified under the Furniture Industry Sustainability Programme SKA (FISP S) scheme;

   d. have been awarded a Business and Institutional Furniture Manufacturers Association (BIFMA) 'level', EU Ecolabel, or equivalent label certification and each product has an EPD LCA data collection form completed; or

   e. have a Cradle to Cradle Certified® Silver or higher certificate;

   f. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:

      - at least 80% of content (measured by mass) that is post-consumer recycled, rapidly renewable and natural material e.g. wool, timber, cork (measured by mass), AND
      - at least 90% of content (measured by mass) that can be recycled or naturally decompose at end of life, AND

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

Fit-out benchmark & assessment tool

Issue

Materials

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If you would like to comment on this measure please email **support@skarating.org**

Chairs - soft seating (continued)

- are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

If not covered already by the above;

g. where plastic parts with a weight ≥50g shall be visibly marked in accordance with the requirements of EN ISO 11469 or EN ISO 1043 so that polymeric materials can be identified to ensure they are able to be recycled, recovered or disposed of in the correct manner at end of life;

h. where fabric is specified, it must all comply with one of the below:

- Oeko Tex certified
- GreenGuard certified
- Cradle 2 Cradle silver or above certified
- Global Organic Textile Standard (GOTS universal standard for organic fibres)
- Global Recycled Standard
- SMART Sustainable Textile Standard of Silver or above.
- Nordic Swan
- EU Ecolabel for textiles

i. where upholstery padding is used all must be CertiPUR ®, Blue Angel or equally certified, or made using natural/ rapidly renewable materials.

And:

4. if timber or containing timber elements, the timber meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if soft seating, benches or stools are specified or installed. It applies for all procurement routes: ordered and supplied through the main contractor, a subcontractor of the fit-out, or supplied by an occupant/tenant direct supplier. Timber materials are also in scope and must comply with the above embodied impacts, whether the project is also targeting or not Ecology measure D20 Timber.

If you would like to comment on this measure please email **support@skarating.org**

Chairs - soft seating (continued)

Assessment

At design stage:

1. Verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
    - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
    - collate all Product Circularity Data Sheets (PCDS), and
    - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage, for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
    - collate delivery notes or delivery confirmations, and
    - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be achieved by default.

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Chairs - soft seating (continued)

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

Definitions:

- A product can be considered to have been reused, refurbished or remanufactured where it is used for its original intended purpose or where the majority of component parts of the product are made into new products without significant reprocessing.
- Refurbishment is when parts of a chair are aesthetically or functionally restored or replaced.
- Remanufacturing is a quality-controlled engineering process that returns chairs to as-new condition by disassembling, checking, repairing or replacing worn parts, resurfacing, reassembling and quality checking.

Disassembly and reassembly for circular solutions means they must not have glued connections, single-use pop studs, push-fit connections or similar irreversible fastenings.

Many suppliers may claim their products contain recyclable components and materials. However, components may be bonded in such a manner to prevent separation and recycling into individual waste streams or local recycling facilities may simply not exist for any given material. Unless a recycling facility can be explicitly identified that is able to reprocess the components and materials at a high level in the value chain, e.g. plastic elements are reprocessed into new furniture and not simply downcycled into plastic bags or other lower value products, it is not acceptable to claim that a product is recyclable. Some suppliers overcome this issue by offering in house take-back and recycling schemes – although not an essential requirement to achieve this measure, the commitment of a supplier to take-back and recycle their products is a good source of evidence to support the claim that a product is recyclable.

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Chairs - soft seating (continued)

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

FISP (S) – Furniture Industry Sustainability Programme has an elevated manufacturer audit that aligns with the SKA criteria. This is identified in their manufacturer certificates with the prefix 'S'.

EUROPUR - European association of flexible polyurethane foam blocks manufacturers.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

European commission – furniture criteria

List of ecolabels on furniture

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Screed

Criteria

All screeds and their ingredients in the scope of the project must meet the following criteria:

1. if cement: sand based, are manufactured with cement replacement and recycled aggregates in one of the following options:
   a) are CEM III/A 52.5L Low Carbon Cement (Blended 65% GGBS and 35% OPC);
   b) have a screed mix Low Carbon Blend recipe of Cement and Builders Sand (Clean Sharp) 1:3-5 (weight) 1:4 in most cases;
   c) are manufactured with at least 50% post-consumer recycled content and are 100% recyclable.

Or,

2. if not cement: sand based, they contain one of the following: Gypsum, Desulfurization Gypsum, Calcium Sulfate or Anhydrite screed;

And,

3. any of the above types of screeds, are compliant with at least one of the following criteria:
   d) are supplied with an environmental product declaration, written in accordance with ISO 14025 standard.
   e) are sourced from a certified manufacturer with a BES 6001 'Good' or better performance rating
   f) are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

Scoping

This measure applies if screed is specified or installed; this includes all screeds used for floor repairs, replacement, build-up, leveling or wearing etc.

Assessment

At design stage:

1. Obtain the screed mixture details that demonstrate compliance with criteria 1 or 2.

Fit-out benchmark & assessment tool

Issue

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ID

M03

Rank

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Screed (continued)

And,

1. for all materials/products and mixtures, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

At handover stage: for all installed products and materials collate delivery notes or invoices showing the compliant products installed.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

An example of recycled screed is the replacement of sand with recycled vitrified or amorphous glass. However, since glass is not compatible with Ordinary Portland Cement (OPC), a blended mix of OPC and Ground Granulated Blast-furnace Cement (GGBS) should be considered as a cement replacement.

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

Fit-out benchmark & assessment tool

Issue

Materials

ID

M03

Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Screed (continued)

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

ISO 14001:2015 – Environmental management systems – Requirements with guidance for use

ISO 14005: 2019 – Environmental management systems – Guidelines for the phased implementation of an environmental management system, including the use of environmental performance evaluation

BES 6001 Responsible Sourcing of Construction Products.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Materials

ID

M03

Rank

50

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Wall covering

Criteria

1. All wall coverings and their adhesives and fixings, are designed for disassembly and supplied with a disassembly guide where not a film or other sheet product.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS),

Or,

3. where new, or a mixture of new and re-used materials are added or repairs made, they are compliant with at least one of the following criteria:
    a. all wall covering installations across the project have a total upfront A1-A3 carbon intensity** of 7.04 $kgCO_2e$ per m^2 of project floor area or lower (Net Zero aligned approach);
    b. are supplied with an environmental product declaration, written in accordance with ISO 14025 standard (good practice approach);
    c. have a Cradle to Cradle Certified® Silver or higher certificate;
    d. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:
        - at least 50% of content (measured by mass) that is post-consumer recycled, rapidly renewable and natural material e.g. wool, natural rubber, hessian (measured by mass), and
        - at least 90% of content (measured by mass) that can be recycled or naturally decompose at end of life, and
        - are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

And,

4. if timber or containing timber elements, in addition to complying with one of the above criteria, the timber also meets the criteria of Ecology good practice measure D20 Timber.

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

Fit-out benchmark & assessment tool

Issue

Materials

ID

M16

Rank

51

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Wall covering (continued)

Scoping

This measure applies if wall covering is specified or installed, as follows:

a. wallpaper

b. wall films

c. textile or other soft wall coverings

d. curtains (including hangers, rails, and casings)

Also in scope of this measure are all related underlay materials whether soft materials or hard boards, and any fixing material and product related to the installation of wall coverings such as adhesives and grouting.

The following elements are out of scope:

- mechanical Fixings
- all hard wall covering that are assessed under M13:
  - ceramic and porcelain tiles/panels,
  - concrete tiles
  - wall mirrors,
  - brick slips,
  - timber panels
  - homogenous composite panels / acrylic, plastics etc
  - homogenous > bio-based materials
  - mixed/terrazzo/recycled composite panels
  - acoustic panels
  - fabric, foam, frames etc Upholstered panels
  - metal panels and sheets
  - glass panels
  - natural stone
- M14 Paints and coating

Assessment

At design stage:

1. Verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
   - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,

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If you would like to comment on this measure please email **support@skarating.org**

Wall covering (continued)

- collate all Product Circularity Data Sheets (PCDS), and
- verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.

3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage, for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
   - collate delivery notes or delivery confirmations, and
   - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

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Wall covering (continued)

Guidance

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Window treatments and curtains

Criteria

1. All window treatments and curtains are designed for disassembly and supplied with a disassembly guide.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS),

or,

3. where new, or a mix of new and reused materials are added or repairs made, they are compliant with at least one of the following criteria:

   a. all (new and reused) window treatment and curtain installations across the project have a total upfront A1-A3 carbon intensity** of 0.73 $kgCO_2e$ per m^2 of project floor area or lower (Net Zero aligned approach);

   b. are supplied with an environmental product declaration, written in accordance with ISO 14025 standard (good practice approach);

   c. have a Cradle to Cradle Certified® Silver or higher certificate;

   d. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:

      - at least 50% of content (measured by mass) that is post-consumer recycled, rapidly renewable and natural material e.g. wool, natural rubber, hessian, and
      - at least 90% of content (measured by mass) that can be recycled or naturally decompose at end of life, and
      - are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

   e. where fabric is specified, it must all comply with one of the below:

      - Oeko Tex certified
      - GreenGuard certified
      - Cradle 2 Cradle silver or above certified

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

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If you would like to comment on this measure please email **support@skarating.org**

Window treatments and curtains (continued)

- Global Organic Textile Standard (GOTS universal standard for organic fibres)
- Global Recycled Standard
- SMART Sustainable Textile Standard of Silver or above.
- Nordic Swan
- EU Ecolabel for textiles

And,

4. if timber or containing timber elements, in addition to complying with one of the above criteria, the timber also meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if window treatments are specified or installed. The criteria apply to the main shading material of blinds, drapes and curtains. Window or glass film materials are to be assessed under wall coverings.

Assessment

At design stage:

1. verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
   - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
   - collate all Product Circularity Data Sheets (PCDS), and
   - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

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If you would like to comment on this measure please email **support@skarating.org**

Window treatments and curtains (continued)

At handover stage, for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
   - collate delivery notes or delivery confirmations, and
   - verify re-use in the project's final RMPT.
3. For new materials/products, collate delivery notes or invoices showing the compliant products.

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

The ability to recycle fabric blinds with applied reflective coatings may be limited by the presence of the coating (check details with the specific manufacturer – some manufacturers operate sustainable practices of production and reclamation). Steel venetian blinds will be readily recyclable and may include recycled content; however, the likelihood of recycling taking place will depend on the value of steel. Timber blinds should be assessed for sustainability of timber sourcing. Timber blinds can readily be used as an energy source at the end of their useful life.

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of

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Window treatments and curtains (continued)

elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Paints and coatings

Criteria

All paints and coatings meet at least one of the following criteria:

1. are supplied with environmental product declarations, written in accordance with ISO 14025 standard, and all surface coating installations have a total upfront A1-A3 carbon intensity** of 0.39* $kgCO_2e$ per m^2 of project floor area or lower (Net Zero aligned approach);
2. are supplied with an environmental product declaration written in accordance with ISO 14025 standard (good practice approach);
3. have a Cradle to Cradle Certified® Silver or higher certificate;
4. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are produced with:
   a) at least 50% of content (measured by mass) that is post-consumer recycled, AND
   b) are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

Scoping

This measure applies if paint or coating is specified or used. Base coats and primers are included in scope.

Paint and coating definition includes:

- lacquers, stains, oils, waxes, surface impregnations, plenum surface sealers, floor paints
- coatings: Polyester powder coatings and PVDF, PVF2 used on metal profiles

Assessment

At design stage:

1. verify the disassembly guide is provided for all products or will be at the handover stage.

*Functional Unit: 1 m^2 of painted substrate with >98% opacity. This is typically two coats of application.

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

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If you would like to comment on this measure please email **support@skarating.org**

Paints and coatings (continued)

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
    - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
    - collate all Product Circularity Data Sheets (PCDS), and
    - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage, for all installed products and materials:

1. for re-used materials/products or closed-loop suppliers:
    - collate delivery notes or delivery confirmations, and
    - verify re-use in the project's final RMPT.
2. For new materials/products collate delivery notes or invoices showing the compliant products.

And,

3. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

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If you would like to comment on this measure please email **support@skarating.org**

Paints and coatings (continued)

Guidance

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

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If you would like to comment on this measure please email **support@skarating.org**

Other loose furniture

Criteria

1. All other loose furniture products are designed for disassembly and supplied with a disassembly guide.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS).

Or,

3. where new, or a mix of new and reused products are added or repairs made, they are compliant with at least one of the following criteria;

    a. projects with a construction budget of over £5M; all, or a mix of new and reused other loose furniture across the project, have a total upfront A1-A3 carbon intensity** of 10.30 $kgCO_2e$ per m^2 of project floor area or lower. (Net Zero aligned approach)

For smaller projects, optional good practice approach criteria also include:

    b. are supplied with an environmental product declaration, written in accordance with ISO 14025 standard.

    c. the company manufacturing the products is certified under the Furniture Industry Sustainability Programme SKA (FISP S) scheme;

    d. have been awarded a Business and Institutional Furniture Manufacturers Association (BIFMA) 'level', EU Ecolabel, or equivalent label certification and each product has an EPD LCA data collection form completed; or

    e. have a Cradle to Cradle Certified® Silver or higher certificate;

    f. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:

        - at least 50% of content (measured by mass) that is post-consumer recycled, rapidly renewable and natural material e.g. wool, timber, cork (measured by mass), AND
        - at least 80% of content (measured by mass) that can be recycled or naturally decompose at end of life, AND

** Criteria 3a) intensity figure is calculated by dividing the total carbon weight of all relevant elements with the total m^2 project floor area. The products included are new and reused combined as may be applicable in each case.

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If you would like to comment on this measure please email **support@skarating.org**

Other loose furniture (continued)

- are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

If not covered already by the above;

g. where plastic parts with a weight ≥50 g shall be visibly marked in accordance with the requirements of EN ISO 11469 or EN ISO 1043 so that polymeric materials can be identified to ensure they are able to be recycled, recovered or disposed of in the correct manner at end of life;

h. where fabric is specified, it must all comply with one of the below:

- Oeko Tex certified
- GreenGuard certified
- Cradle 2 Cradle silver or above certified
- Global Organic Textile Standard (GOTS universal standard for organic fibres)
- Global Recycled Standard
- SMART Sustainable Textile Standard of Silver or above.
- Nordic Swan
- EU Ecolabel for textiles

i. where upholstery padding is used all must be CertiPUR® , Blue Angel or equally certified, or made using natural/ rapidly renewable materials.

And:

4. if timber or containing timber elements, the timber meets the criteria of Ecology good practice measure D20 Timber.

Scoping

This measure applies if furniture not covered by good practice measures M19 Desks and tables, M20 Chairs – task seating, M21 Storage units and M29 Chairs – soft seating are specified, retained, modified, replaced or installed. Example items can include but are not limited to such furniture as non-serviced pods, call booths, lecterns, and audiovisual stands. It applies for all procurement routes: ordered and supplied through the main contractor, a subcontractor of the fit-out, or supplied by an occupant/tenant direct supplier. Timber materials are also in scope and must comply with the above embodied impacts, whether the project is also targeting or not Ecology measure D20 Timber.

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If you would like to comment on this measure please email **support@skarating.org**

Other loose furniture (continued)

Assessment

At design stage:

1. verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
    - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
    - collate all Product Circularity Data Sheets (PCDS), and
    - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage, for all installed products and materials:

1. Verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
    - collate delivery notes or delivery confirmations, and
    - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be considered achieved by default.

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If you would like to comment on this measure please email **support@skarating.org**

Other loose furniture (continued)

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

Definitions:

- A product can be considered to have been reused, refurbished or remanufactured where it is used for its original intended purpose or where the majority of component parts of the product are made into new products without significant reprocessing.
- Refurbishment is when parts of a product are aesthetically or functionally restored or replaced.
- Remanufacturing is a quality-controlled engineering process that returns products to as-new condition by disassembling, checking, repairing or replacing worn parts, resurfacing, reassembling and quality checking.

Disassembly and reassembly for circular solutions means they must not have glued connections, single-use pop studs, push-fit connections or similar irreversible fastenings.

Many suppliers may claim their products contain recyclable components and materials. However, components may be bonded in such a manner to prevent separation and recycling into individual waste streams or local recycling facilities may simply not exist for any given material. Unless a recycling facility can be explicitly identified that is able to reprocess the components and materials at a high level in the value chain, e.g. plastic elements are reprocessed into new furniture and not simply downcycled into plastic bags or other lower value products, it is not acceptable to claim that a product is recyclable. Some suppliers overcome this issue by offering in house take-back and recycling schemes – although not an essential requirement to achieve this measure, the commitment of a supplier to take-back and recycle their products is a good source of evidence to support the claim that a product is recyclable.

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

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If you would like to comment on this measure please email **support@skarating.org**

Other loose furniture (continued)

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

FISP (S) – Furniture Industry Sustainability Programme has an elevated manufacturer audit that aligns with the SKA criteria. This is identified in their manufacturer certificates with the prefix 'S'.

EUROPUR - European association of flexible polyurethane foam blocks manufacturers.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

European commission – furniture criteria

List of ecolabels on furniture

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects.

This measure is contributing to the following UN SDGs:

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If you would like to comment on this measure please email **support@skarating.org**

HVAC equipment

Criteria

1. All technologies are installed for disassembly (unless regulations prevent this) and supplied with a disassembly guide.

And comply with either criteria 2 or 3 below in each instance;

2. are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS),

Or,

3. where new, technologies in scope must comply with at least one of the following criteria:

   a. 10% of the number of technologies in scope are supplied with a product specific environmental product declaration, written in accordance with ISO 14025 standard and where it is one of the product types below it must meet or be less than the upfront A1-A3 carbon functional unit as follows:

	$kgCO_2e/(m^3/s)$	$kgCO_2e/kW$
AHUs	14,483.8	96.7

	$kgCO_2e/kW$	$kgCO_2e/kg$
FCUs	369.6	7.4

	$kgCO_2e/kW$	$kgCO_2e/kg$
Heat pumps	80.7	4.9

   b. 40% of the number of technologies in scope are supplied with a TM65 Embodied carbon in building services LCA calculation (good practice approach).

   c. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:

   - at least 60% (measured by mass) that is post-consumer recycled, and
   - at least 60% (measured by mass) that can be recycled at end of life, and
   - are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

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If you would like to comment on this measure please email **support@skarating.org**

HVAC equipment (continued)

And,

4. for projects with a build cost equal to or above £5M, 100% of the technologies in scope must comply with at least one of the criteria listed in criteria 3.

Scoping

This measure applies to all new, relocated and adapted HVAC equipment in the scope of the project and as listed below:

- heat Pumps
- fan coil units
- air Handling Units
- heat recovery units

Assessment

At design stage:

1. verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:
    - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
    - collate all Product Circularity Data Sheets (PCDS), and
    - verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

At handover stage, for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
    - collate delivery notes or delivery confirmations, and
    - verify re-use in the project's final RMPT.

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Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

HVAC equipment (continued)

3. For new materials/products collate delivery notes or invoices showing the compliant products.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

CIBSE TM65 Embodied carbon in building services: a calculation methodology

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

Fit-out benchmark & assessment tool

Issue

Materials

ID

M30

Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

HVAC equipment (continued)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects. Carbon limits will be added to each technology as data sources expand.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Cables, pipes, ducts and lighting controls

Criteria

1. Technologies in scope must include a minimum of 10% (measured by mass) re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS),

And,

2. Where new materials are added or repairs made, they are compliant with at least one of the following criteria:
   a. 10% (measured by mass) of the technologies in scope are supplied with a product specific environmental product declaration, written in accordance with ISO 14025 standard and have maximum upfront A1-A3 carbon limit for each element as follows:
      - ventilation Ductwork: 12.36 $kgCO_2e$ per linear meter or 3.05 $kgCO_2e$ per kg
      - ventilation and thermal grills and frames: 9.07 $kgCO_2e$ per unit (mass at 1.295 kg per unit)
      - HVAC pipework: 1.5 $kgCO_2e$ per kg or 3.5 $kgCO_2e$ per metre
      - PIR and light controls (including daylight sensors): 1.65 $kgCO_2e$ per unit (Net Zero aligned approach)
   b. 40% (measured by mass) of the technologies in scope are supplied with a TM65.2 Embodied carbon in building services: lighting LCA calculation (good practice approach).
   c. are products manufactured for Circular performance, supplied with a Product Circularity Data Sheet (PCDS), and are designed with:
      - at least 60% of content (measured by mass) that is post-consumer recycled, rapidly renewable and natural material e.g. wool, natural rubber, hessian (measured by mass), and
      - at least 80% of content (measured by mass) that can be recycled or naturally decompose at end of life, and
      - are manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

Fit-out benchmark & assessment tool

Issue

Materials

ID

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Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Cables, pipes, ducts and lighting controls (continued)

Scoping

This measure applies if any one of the new or re-used technologies below are specified or installed:

CABLES

1. Any cables that relate to:
   - Lighting and PIR
   - HVAC
   - AMT/BMS system
   - CO_2 and VOC monitors
   - IT/AV
   - Metering
   - Leakage detection system
2. Armoured cables

HVAC PIPES, DUCTS AND GRILLS

a. Ventilation ducts
b. HVAC grills
c. HVAC pipes

PIRs AND LIGHTING CONTROLS

a. PIR & Daylight sensors
b. Lighting controls

PROJECT BUILD COSTS of £5m AND ABOVE

a. The following cabling-related containment elements must be added to the scope:
   - trunking for any of the cable types
   - baskets for any of the cable types
   - trays for any of the cable types

b. Optional in scope for this measure are:
   - water supply pipes for drinking and to taps
   - plumbing wastewater pipes
   - landscaping related pipes

Assessment

At design stage:

1. Verify the disassembly guide is provided for all products or will be at the handover stage.

And,

2. for re-used materials/products or closed-loop take-back scheme supplier confirmations:

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If you would like to comment on this measure please email **support@skarating.org**

Cables, pipes, ducts and lighting controls (continued)

- collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
- collate all Product Circularity Data Sheets (PCDS), and
- verify sources and quantities in the project's RMPT or/and in the pre-refurbishment audit.

3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.

And,

4. verify that all timber containing materials/products comply with D20 Timber and collate evidence that demonstrates this.

At handover stage, for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

And,

2. for re-used materials/products or closed-loop suppliers:
   - collate delivery notes or delivery confirmations, and
   - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.

And,

4. verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if systems or products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and systems or products have not been changed or added, this measure will be achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

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If you would like to comment on this measure please email **support@skarating.org**

Cables, pipes, ducts and lighting controls (continued)

Guidance

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero aligned carbon limits and enable circularity to increase on and between projects. Carbon limits will be added to each technology as data sources expand.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Decorative and other light fittings

Criteria

1. All products are installed fully demountable and upgradeable with no damage to luminaire and supplied with a demountability guide.

And comply with either criteria 2 or 3 below in each instance;

2. largest product (by quantity in number) or a minimum of two luminaire types on the project, are re-used products (Net Zero aligned approach) or supplied from a manufacturer with a closed-loop take-back scheme, and in all cases supplied with a Product Circularity Data Sheet (PCDS),

Or,

3. where new materials are added or repairs made, 50% of the number of fittings in scope are compliant with at least one of the following criteria;
    a. are supplied with an environmental product declaration, written in accordance with ISO 14025 standard, TM65, or TM65.2,
    b. have a Cradle to Cradle Certified® Silver or higher certificate;
    c. the product assembly or system (excluding suspended tiled products and systems) are manufactured for circular performance, are supplied with a Product Circularity Data Sheet (PCDS), and are designed with:
        - at least 60% (measured by mass), post-consumer recycled, rapidly renewable or otherwise compliant content, and
        - at least 90% (measured by mass) of components that can be re-used or recycled at end of life, and
        - manufactured in a factory that has achieved and maintains an Environmental Management System in accordance with ISO 14001, or ISO 14005 or Eco-Management and Audit Scheme (EMAS).

Where not already covered by the above;

    d. if fabrics or fabric-containing elements, the products must comply with the criteria for fabrics found in any of the furniture measures M19-M21
    e. if paints or coating elements not already covered in above criteria, the products must comply with the criteria of measure M14 Paints and coatings.

And,

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If you would like to comment on this measure please email **support@skarating.org**

Decorative and other light fittings (continued)

2. if timber or timber-containing elements, in addition to complying with one of the above criteria, the timber also meets the criteria of Ecology good practice measure D20 Timber.

Scoping

Any new and reused (relocated or adapted) architectural and integrated light fitting as listed below is in scope:

- pendant / hanging / suspended light fittings / track systems
- surface mounted ceiling light fittings
- downlights / recessed ceiling light fittings
- surface mounted and recessed wall lights
- pole mounted

This measure includes luminaires with integrated light sources that are fixed to/on/from ceilings, walls or pole lights. Refer to measure M32 Light fittings for architectural and integrated light fittings.

Assessment

At design stage:

1. verify a demountability guide is provided for all products, or will be at the handover stage.
2. For re-used materials/products or closed-loop take-back scheme supplier confirmations:
    - collate the re-use confirmation evidence such as storage listings/stocks, current use photos, take-back scheme agreement, drawings or specifications including re-use or take-back scheme details,
    - collate all Product Circularity Data Sheets (PCDS), and
    - verify sources and quantities in the project's RMPT and/or in the pre-refurbishment audit.
3. For all new materials/products and assemblies, check specifications explicitly reference or meet one of the criteria and collate relevant evidence.
4. Verify that all timber containing materials/products comply with D20 Timber, and collate evidence that demonstrates this.

At handover stage: for all installed products and materials:

1. verify that all the disassembly guides and PCDS have been provided and given to the client.

If you would like to comment on this measure please email **support@skarating.org**

Decorative and other light fittings (continued)

2. For re-used materials/products or close-loop suppliers:
   - collate delivery notes or delivery confirmations, and
   - verify re-use in the project's final RMPT.
3. For new materials/products collate delivery notes or invoices showing the compliant products.
4. Verify all timber containing materials/products are delivered to site in compliance with D20 Timber requirements.

At occupancy stage: if products have been changed or added then carry out the design and handover stage assessments. If this measure was achieved at handover stage and products have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be estimated using life cycle analysis (LCA). LCA takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

UKGBC Net Zero Whole Life Carbon Roadmap.

CIBSE TM65 Embodied carbon in building services: a calculation methodology

CIBSE TM65.2 Embodied carbon in building services: lighting

CIBSE TM66 Creating a circular economy in the lighting industry (2021)

ISO 14021:1999: Environmental labels and declarations – Type II Self-declared Environmental Claims. Any claim regarding recycled and recyclable content must comply with ISO 14021:2016. The term 'recycled content' includes both post-consumer waste and secondary materials (defined as a waste by-product from a different industry). Processing waste recycled in-house should not be included in the recycled content calculations for the product.

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If you would like to comment on this measure please email **support@skarating.org**

Decorative and other light fittings (continued)

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

ISO 14025:2006: Environmental labels and declarations – Type III Environmental Declarations. All Environmental Product Declarations (EPDs) must be product specific and comply with ISO 14025:2006 or later versions.

Cradle to Cradle Certified® programme

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

For a growing list of SKArating compliant products and materials that hold the SKA Product Compliant Label refer to the online database.

Green Lighting Alliance

Greenlight Alliance Incubator LCA benchmarks

Recolight Scheme

Maintain / Prolong: where existing fitting retention is promoted, it is assumed fixtures are LED and meet minimum legislative energy efficiency targets set by Part L.

Reused and Regenerated: products can be from another site, second-hand source or manufacturer stock.

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all products to have an LCA by 2030, reduce upfront impacts to align with Net Zero c aligned arbon limits and enable circularity to increase on and between projects. All light fixtures (New, refurbished, second hand and remanufactured) to come with a 5-year warranty and where applicable a 1-year battery. Carbon limits will be added to each technology as data sources expand.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Embodied carbon assessment

Criteria

An embodied carbon life-cycle assessment (LCA) is undertaken and report issued covering all the project's scope of works, and in accordance with the current RICS WLC assessment methodology.

1. Projects with a construction value of £4m and over must as a minimum:
   a) undertake predictive emissions and issue a report during both RIBA stages 2 and 4, and
   b) record actual emissions and issue report as delivered at RIBA stage 6 handover.
2. Projects with a construction value of <£4m can choose one of the two RIBA stages noted above (Stages 2 and 4, OR Stage 6) if they can't undertake both.

And,

3. in all above projects, the handover LCA report(s) must be submitted to the BECD database.

This measure is currently requesting only upfront LCA emission assessments.

The assessment report should be based on the fit-out design and delivery works and should report the measured impacts as intensity in $kgCO_2e$ / m^2. Use NIA of the project or tenancy area for the calculation.

Scoping

This measure is always in scope, unless a project has a build cost of £500k or below in which case it is optional. LCAs must cover the whole scope of works of the project, including direct and indirect purchases.

Assessment

At design stage:

1. review the LCA report to ensure it meets the criteria during RIBA stages 2 and 4. If the project is £4m or under and is opting to undertake a RIBA Stage 2 and 4, or Stage 6 report only, obtain details of the appointment of the LCA consultant or another competent professional who will be undertaking the work. Use the RICS WLC methodology template for the report required at each stage assessment.

Fit-out benchmark & assessment tool

Issue

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D89

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If you would like to comment on this measure please email **support@skarating.org**

Embodied carbon assessment (continued)

At handover stage:

2. review the Stage 6 handover actuals LCA report and ensure it meets the criteria. If the project is under £4m or under and opted to undertake RIBA Stages 2 and 4 reports only, then the measure is not assessed again and maintains the design stage assessment result. Use the RICS WLC methodology template for the report required at each stage assessment.
3. obtain evidence that the LCA data has been uploaded to the BECD for each stage. This can be an email confirmation or screenshot of the upload page when the data is about to be submitted.

At occupancy stage: if this measure was achieved at handover stage, this measure will be considered achieved by default at this stage.

Rationale

The aim is to reduce the embodied lifetime environmental impacts of materials in line with science-based targets which can be measured using life cycle assessment (LCA). A Whole Life Carbon assessment takes account of environmental impacts over the lifetime of a product, for example the impact arising from mineral extraction, manufacturing, transport and end-of-life disposal. LCA is the basis of environmental product declarations and environmental preference methods for materials selection.

Guidance

For more information on embodied intensity targets and how to achieve them, please refer to the UK Net Zero Carbon Buildings Standard.

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon.

Built Environment Carbon Database (BECD)
FAQ videos are available on the site on how to upload the carbon data to the online database.

UKGBC Net Zero Whole Life Carbon Roadmap

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document “Guidance: Make an Environmental Claim for Your Product, Service, or Organisation” here.

Fit-out benchmark & assessment tool

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If you would like to comment on this measure please email **support@skarating.org**

Embodied carbon assessment (continued)

Pathway to 2030+

Changes to this measure are expected to follow the current approach of encouraging all projects to have an LCA by 2030 and undertake an assessment during each project review stage to suit. The aims will be to support the reduction of upfront and WLC impacts and enable alignment with Net Zero aligned carbon limits.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Low impact refrigerants

Criteria

The systems using refrigerants have Direct Effect Life Cycle CO_2 equivalent emissions (DELC CO_2e) of 1000 $kgCO_2e/kW$ cooling capacity.

The Direct Effect Life Cycle CO_2e emissions (DELC) per kW of cooling capacity are calculated using the following equation:

$$\frac{(\text{Refrigerant loss operational} + \text{refrigerant loss system retirement}) \times GWP}{\text{Cooling Capacity (kW)}}$$

Where:

$$\text{Refrigerant loss operational: } \frac{(Ref_{charge} \times Sys_{op\text{-}life} \times (L1 + L2 + S1 + S2))}{100}$$

$$\text{Refrigerant loss system retirement} = Ref_{charge} \times ((1 - Ref_{RecEff})/100)$$

Where:

- Ref_{charge} = Refrigerant charge
- $Sys_{op\text{-}life}$ = System operational lifetime (years) - use default value of 10 years
- Ref_{RecEff} = Refrigerant Recovery Efficiency factor (%)
- L1 = Annual Leakage Rate (units: % refrigerant charge)
- L2 = Annual Purge Release factor (% Refrigerant charge)
- S1 = Annual Service Release (% Refrigerant charge)
- S2 = Probability factor for catastrophic failure (% refrigerant charge loss/year)
- GWP = Global Warming Potential of refrigerant (kg CO_2e / kg)
- Cooling capacity (kW)

Calculations that demonstrate compliance with the criteria should be conducted in accordance with BS EN 378-1: 2016 + A1: 2020 and be provided for confirmation.

Scoping

This measure applies if any new refrigerants are used in the building services.

Assessment

At design stage: obtain evidence from the designer that the proposed refrigerant containing systems or their performance specification included in the procurement information, meets the criteria. Obtain manufacturers/installers calculations of DELC, conducted in accordance with BS EN 378-1, along with manufacturer's literature to support the calculations. Check the manufacturer's literature to determine the refrigerant and check the DELC calculations are in line with BS EN 378.

Fit-out benchmark & assessment tool

Issue

Pollution

ID

D23

Rank

12

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Low impact refrigerants (continued)

At handover stage: If the product and manufacturer have not already been specified then carry out the design stage assessment. Obtain as-built information to confirm that the specified product and system has been installed.

At occupancy stage: this measure is not assessed at this stage. The measure is achieved by default if it was achieved at handover stage.

Rationale

The aim is to reduce the use of materials that cause global warming and support the phase out of refrigerants that have high climate change impacts.

Guidance

BS EN 378-1:2016 + A1:2020 – Refrigerating systems and heat pumps. Safety and environmental requirements. Basic requirements, definitions, classification and selection criteria.

Guideline Methods of Calculating TEWI, British Refrigeration Association's (BRA).

Pathway to 2030+

Many high GWP refrigerants have a legally defined phase-out date and are being replaced by more environmentally friendly gases. However, this phase-out is happening over a number of years. This measure will remain in place until the phase out of all high GWP refrigerants is complete to encourage project teams to take refrigerant phase-out into account when designing systems.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Pollution

ID

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Rank

12

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Refrigerant leak prevention

Criteria

Refrigerant systems must be designed to prevent leaks using these standards:

1. BS EN378-1: 2016 + A1: 2020 Refrigerating Systems and Heat Pumps: Safety and Environmental Requirements
2. REAL Zero's guidance:
   a. Designing out leaks: design standards and good practices
   b. Guide to good leak testing, and
   c. Leakage matters: the service and maintenance contractor's responsibilities.

Scoping

This measure applies where any new refrigerant systems are installed, or changes are made to an existing system. It does not apply to systems:

- with a refrigerant charge of under 3kg; or
- where the refrigerant has a GWP of less than five.

Assessment

At design stage: check the written specifications/contracts include the requirements to comply with the criteria.

At handover stage: if not already provided at the design stage obtain the evidence that demonstrates compliance with the criteria. And obtain as-built evidence to show that all relevant refrigerant systems have been installed and tested in accordance with the criteria. Ensure that indicative examples of where and how the strategy complies with the standards/guidance are provided.

At occupancy stage: check records to ensure that servicing and maintenance is being carried out in accordance with the required British Standard and relevant REAL Zero guidance. Review the occupier's maintenance records to ensure the equipment is being used and maintained correctly and has not been disabled.

Rationale

The aim is to reduce the emission of refrigerants into the atmosphere in the event of a leak. The emission of refrigerants has two principal effects:

- Environmental impact – many refrigerants damage the ozone layer and most also contribute to global warming.
- Higher running costs – leakage of refrigerant reduces efficiency.

Fit-out benchmark & assessment tool

Issue

Pollution

ID

D57

Rank

14

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Refrigerant leak prevention (continued)

Guidance

BS EN 378-1:2016 + A1:2020 – Refrigerating systems and heat pumps. Safety and environmental requirements. Basic requirements, definitions, classification and selection criteria.

REAL Zero Guidance

EU Real alternatives, blended learning for alternative refrigerants

Pathway to 2030+

This measure will remain in scope whilst the fit-out industry continues to transition to heat-pump and refrigerant driven heating and cooling systems.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Pollution

ID

D57

Rank

14

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Construction water pollution

Criteria

Projects should introduce measures to prevent water pollution entering drains from site activities. This includes:

1. Providing water filtration and treatment, including pH adjustment systems for:
    - paints and coatings
    - plaster, including patching and filling compounds
    - cements, concrete and screed
    - tile grout and adhesives
    - adhesives
2. Providing water treatment for water used for commissioning, including those where water treatment chemicals are used.
3. Records should be kept of the pollution control measures implemented (e.g. photographs, training records, method statements etc).

Scoping

This measure applies where any of the following form part of the project scope:

- plastering and filling and patching of walls
- cement and lime-based mortars
- concrete
- screed
- paints and coatings
- liquid adhesives
- tiling and grouting
- commissioning of building services using water or other liquids.

Assessment

At design stage: Review the project scope to establish which activities may give rise to water pollution. Review contract scopes and specifications to check they require the contractor to control the risk of water pollution. Review pollution control method statements to ensure they minimise risks of pollution.

At handover stage: Check pollution control measures are in place in line with the method statements during site visits. Review site records (e.g. photographs, training logs, site audit reports etc) showing that measures were implemented.

Fit-out benchmark & assessment tool

Issue

Pollution

ID

P19

Rank

58

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Construction water pollution (continued)

At occupancy stage: this measure is not assessed. The measure is achieved by default if it was achieved at handover stage.

Rationale

The aim is to reduce the negative impact of fit-out projects on water courses, including sewers by preventing pollutants being discharged from site.

Guidance

For a general guidance on sustainable procurement and site management refer to the documents:

CIRIA Guide to sustainable procurement in construction

CIRIA Fit-out environmental good practice on site guide

UKGBC Sustainable Procurement, practical guide

Supply Chain Sustainability School guidance documents

Pathway to 2030+

This measure is likely to remain in the scheme until effective pollution control measures are standard practice on all projects, or pollution chemicals and processes have been eliminated from fit-out projects.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Pollution

ID

P19

Rank

58

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Limiting plant noise

Criteria

1. A noise impact assessment in compliance with BS 4142:2014 + A1:2019 is undertaken or the landlord/developer has previously commissioned a noise impact assessment in compliance with BS 4142:2014 + A1:2019.

Or,

2. a report shows that new plant will not create a noise level more than 5dB above existing background noise levels, or the report provides recommendations for acoustic insulation to ensure that any new installed plant will not create a noise level more than 5dB above existing background noise levels.

And in either above case, both below criteria are also achieved:

3. the installed plant and/or acoustic insulation meets the requirements of the report,

And,

4. an acoustic assessment is carried out by a suitably qualified acoustic consultant holding a recognised acoustic qualification and membership of an appropriate professional body, demonstrating that plant noise does not raise the noise levels above those recommended.

Scoping

This measure applies if new plant is being installed that will generate external noise.

Assessment

At design stage:

1. Ensure noise impact and acoustic assessments have been carried out (either as part of the project or previously). Obtain a copy of the reports and check that it meets the criteria.
2. Check the drawings and/or specifications to ensure that the proposed plant and proposed attenuation measures meet the requirements.
3. Check the acoustician appointed belongs to a recognised professional body, and they are appointed to undertake the final site test and produce a report on this. Or check that the requirement to do so forms part of the procurement details.

Fit-out benchmark & assessment tool

Issue

Pollution

ID

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Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Limiting plant noise (continued)

At handover stage:

1. Confirm with as-built drawings and a site visit that there have been no changes to the building since the initial impact and acoustic assessments were undertaken, or/and
2. check that the installed plant and/or acoustic insulation meets the report recommendations.
3. Obtain the acousticians final site testing report and ensure it meets the requirements.

At occupancy stage: this measure is not assessed. The measure is achieved by default if it was achieved at handover stage.

Rationale

The aim is to reduce the impact of operational noise pollution from new plant on the surrounding environment.

Guidance

This measure usually applies to HVAC plant but would also apply to any other installed plant that generates external noise.

Method for rating industrial noise affecting mixed residential and industrial areas, BS 4142:2019, BSI, 2019.

Sound insulation and noise reduction for buildings. Code of practice, BS 8233:2014, BSI, 2014.

Pathway to 2030+

The transition to heat-pump driven heating and cooling has a significant impact on noise emissions from buildings and interior fit-out projects. This measure will stay in scope to ensure the emissions associated with external heat pumps in particular, are mitigated to offset the negative noise impacts they can create.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Pollution

ID

D25

Rank

66

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Soft Landings: design workshops

Criteria

Both of the following workshops are required to happen:

1. Design stage workshop with design team

Aim: to enable the design team to understand how effectively current systems are operating, to test whether the new and retained systems are appropriate for the occupants/building maintenance staffs and to raise any issues about the functionality and operability of the design.

Attendees: the workshop should involve the design team, the contractor (if appointed), an end-user representative, and a representative from building management who will be responsible for operation of the new space.

Agenda:

- Review feedback and lessons learnt from any previous projects, especially relating to occupant behaviour, controls strategies, maintenance issues and selection of equipment.
- Set roles and responsibilities.
- Set specific and measurable operational outcomes to be achieved by the project (e.g. in-use energy consumption, reactive maintenance etc).
- Test out proposed user interfaces (controls) with occupants and operations staff.

2. Design intent workshop with contractor

Aim: to ensure that the design intent is clearly communicated to the contractor and that the installed design and equipment aligns with the design intent. Ensure the contractor understands their role in the soft landings process, as well as the outcomes that are to be achieved.

Attendees: the workshop should involve a client representative, a building management representative, the contractor and the design team.

Agenda: the workshop should explain and discuss:

- The role of the contractor in the soft landings process.
- The performance targets that have been set.
- The rationale for the selection of energy using equipment.
- The reasons for the controls that have been selected.
- The importance of the proposed sub-metering and BMS/AMT strategy.
- The impact of the fit-out design on other systems and parts of the building.
- The process of commissioning, handover and training.
- Information handover to the end user

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

D69

Rank

09

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Soft Landings: design workshops (continued)

Scoping

This measure applies to all fit-outs.

Assessment

At design stage: obtain meeting minutes from the design stage workshops that demonstrate that the agenda has been covered and confirmation of the attendees at the workshop. Obtain evidence that during this workshop specific and measurable performance targets have been set. Any divergence from the design intent should be documented and rationalised.

At handover stage: obtain documentation to confirm that the building has the required systems in place to achieve the performance targets set out at the design stage.

At occupancy stage: obtain documentation to confirm that the performance targets have been met during the first year of occupation.

Rationale

BSRIA developed guidance on 'soft landings' to expand the handover process so that it starts at RIBA stage 2 and continues for 3 years after practical completion. The aim is to shift the focus of good practice from adherence to technical outcomes to performance outcomes, i.e. ensuring that the building benefits the occupants.

Early involvement of operational staff in design process such as prospective occupants, staff and facilities management will allow the occupants using and operating the space to understand the design intent and to provide feedback on their experiences of previous projects.

Involvement of the contractor once appointed is important to gain their lessons learned from other projects and ensure that the equipment being purchased aligns with the design intent. Complex technologies, especially those that are interdependent, require careful attention if they are to perform as the designer intended, these need to be explained to the clients' representatives.

To be the most beneficial, the design stage workshop should cover the setting of performance targets for lighting, small power energy use and water use (if applicable). Lighting targets should be in line with SKArating for reducing lighting energy in use (P10). Using feedback of similar buildings energy profiles will help set appropriate and reachable targets. These targets should be specific and measurable against appropriate benchmarks, can take on a variety of forms but should be time based and trackable. The design team should ensure

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If you would like to comment on this measure please email **support@skarating.org**

Soft Landings: design workshops (continued)

that records of the buildings' energy performance are accessible by the current facilities team after handover (e.g. simple spreadsheets, rather than information contained in dynamic simulation models).

Guidance

BSRIA has a series of guides, listed below, that detail how to implement the Soft Landings framework:

- The Soft Landings Framework: for better briefing, design, handover and building performance in use. BG 54/2014. BSRIA 2018.
- Pitstopping - BSRIA's reality-checking process for soft landings. BG 27/2011. Roderic Bunn. BSRIA. 2011.
- How to procure Soft Landings: Specifications and supporting guidance for clients, consultants and contractors. BG 45/2014. BSRIA 2014.

Pathway to 2030+

This measure is aligned the UK Government's Net Zero Carbon Strategy as it promotes efficient operation of the project space.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

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09

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Project delivery programme

Criteria

A project plan and programme are adopted that allow sufficient time to:

- Complete pre-refurbishment audits in line with GPM D72.
- Provide sufficient time for the design and construction team to design for whole life resource optimisation in line with D60.
- Allow time for existing elements / materials in the space to be dismantled to allow reuse (either on site or elsewhere) in line with the findings from D72 and D60 and in line with the requirements of D09.
- Allow procurement time and processes for existing / reused circular materials and products to be integrated to the project.
- Clearly identify when each workshop will take place to maximise reuse opportunities, during both design and delivery stages of the project.
- Include allowances for post completion reviews and lessons learned exercises to be completed.

The programme should cover all RIBA Stages from project brief to post completion and should be established during RIBA Stage 1.

Scoping

This measure applies to all fit-outs.

Assessment

At design stage:

1. Review the project programme and delivery plan showing when surveys, resource efficiency workshops will take place, and note an allocation for project specific circular procurement processes.
2. Review the project programme and confirm allowances for construction stage disassembly and storage and post occupancy evaluation have been included.

At handover stage:

1. Review the updated delivery project programme and plan and confirm they show when surveys, resource efficiency workshops will take place and note project specific circular procurement processes.
2. Review the project programme at the start on site, at an interim stage, and obtain the final handover version, and confirm allowances for construction stage disassembly and storage and post occupancy evaluation have been maintained in the programme and delivered accordingly.

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Issue

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If you would like to comment on this measure please email **support@skarating.org**

Project delivery programme (continued)

3. Obtain site photos evidencing circularity related processes on the project related to the criteria.

At occupancy stage: this measure is not assessed. The measure is achieved by default if it was achieved at handover stage.

Rationale

The aim is to provide project teams with sufficient time in the project programme to fully consider and implement effective resource management processes and plan for minimising the environmental impact of the fit-out project. The aim is to reduce the amount of materials that are wasted because time pressures do not allow their reuse to be factored into the project. This measure supports the Resource Management and Material categories of SKArating.

Guidance

Effective project planning, including allowing reasonable time to gather survey data, incorporate data in to designs and plan for how procurement and construction works are delivered, improves overall project efficiency, impacts value return, reduces risk and improves quality. Early workshops with the client, project manager (if appointed), designer, contractor and specialist supply chain parties, result in more effective and achievable programmes. This may require starting project planning early than is currently standard where a specific end date needs to be achieved (e.g. a lease end).

Pathway to 2030+

This measure is likely to remain in the scheme, in the current or a refined version, until effective planning for a circular economy becomes standard practice.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

D88

Rank

13

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Soft Landings: aftercare (fine tuning, seasonal commissioning & POE)

Criteria

All the following are required to happen:

At design stage:

- Ensure a contract/appointment is in place to guarantee the designer and contractor returns to fine-tune systems throughout the first year of occupation.
- The contract/appointment should set a designated point of contact from the project team once the project is complete. This person is to liaise with the building operators and occupants to ease the handover process and to allow building users and building maintenance staff to ask questions about user controls, etc.

At handover stage:

- The point of contact should carry out 'walkabouts' and remain on site, at least one day a week, for the initial 8 weeks of occupation. For projects valued under £2m the point of contact should visit the site at least one day every two weeks.
- Ensure that the contractor is appointed to validate the operational performance of the building against the design parameters and soft landing performance targets. This should include validating sub-meter readings.

At occupancy stage:

- Carry out fine tuning and review of systems.
- Undertake seasonal/annual commissioning for complex systems (complex systems are defined in D70 Soft landings: commissioning, handover and training).
- The Soft Landings point of contact should record lessons learnt from the design, construction, operation and handover on behalf of the client to feedback into new projects.
- Carry out a Post Occupancy Evaluation (POE) 12 months after total completion and full occupation. The POE should provide a review of the performance of the building against the Soft Landing's performance targets set at the start of the project. The POE should include:
  - a review of energy use against design benchmarks.
  - an occupant satisfaction survey that covers the building users' views of their working environment; and
  - an audit of the building's engineering and architectural systems.

Scoping

This measure applies to all fit-outs.

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

D71

Rank

41

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Soft Landings: aftercare (fine tuning, seasonal commissioning & POE) (continued)

Assessment

At design stage: ensure there is a contract in place or client commitment to ensure there is a point of contact during the initial occupied months and for up to 1 year afterwards for seasonal/annual commissioning.

At handover stage:

1. A Soft Landings responsibilities schedule or equivalent has been provided, the point of contact from the project team has been nominated and appointed and their scope of work includes time in the building to answer questions and to carry out 'walkabouts' for the initial 8 weeks of occupation. The frequency of these 'walkabouts' depends on the size and scope of the project.
2. Soft Landings responsibilities schedule or equivalent is provided demonstrating that the contractor is appointed to validate sub-meter readings after 2 or 3 months of operation

At occupancy stage:

1. Obtain the updated commissioning records/documentation to confirm that the building has been fine-tuned, and seasonal commissioning of complex equipment has been undertaken.
2. Obtain copy of the lessons learnt report provided to the client.
3. Provide POE report/or contract for it to be undertaken if the building has not reached at least 75% occupancy at the time of the handover assessment.

Rationale

BSRIA developed guidance on 'Soft Landings' to expand the commissioning process so that it starts at RIBA stage 2 and continues for three years after practical completion. The aim is to shift the focus of good practice from adherence to technical outcomes to performance outcomes, i.e. ensuring that the building benefits the occupants.

After works are completed, aftercare and fine tuning is needed to ensure that the building is performing to its design criteria. This should include but not be limited to: validation of sub-meter readings, an aftercare point of contact, fine-tuning of systems and annual/season reviews.

Initial queries are often related to use and performance of unfamiliar systems. A designated point of contact for the users must be available during the initial months. Team members must make themselves available to deal pre-emptively with queries and misunderstandings. Observations, questions and responses will help prevent minor issues developing into longer term chronic irritants for the occupants and client alike. Being present during aftercare provides an opportunity

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Soft Landings: aftercare (fine tuning, seasonal commissioning & POE) (continued)

to observe and learn from initial feedback and problem solving. This is beneficial for avoiding issues earlier in the design stage of future projects. The aftercare point of contact must be someone who worked on the project. There is no benefit to be gained from putting aftercare services out to open tender as this will break project team continuity and the feedback loops that are a core part of soft landings.

Systems will need to be fine-tuned during the first 8 weeks of occupation, a critical period when systems settle into operation, and users become familiar with their functionality. This period offers the greatest potential for fine-tuning and alteration. The longer things are left, the more difficult it is to change them. During these initial weeks the contractor should provide on-site attendance to provide technical guidance and support to the client's facilities management team.

Fine tuning is needed to optimise effective and efficient operation and to take account of occupant feedback and changes in weather and occupancy. Therefore, to be the most effective, commissioning should occur while the building is in use and after seasonal changes. Seasonal and annual reviews must be carried out. By the second year, the building should have entered stable operation, during which time the energy data should be reviewed and adjustments recommended in a quest to improve energy performance.

Once the works and commissioning are completed, contractors/ designers must document lessons learnt, to enable this information to be used in the design stage of new projects.

The purpose of POE is to measure performance outcomes and inform the need for any interventions to improve performance. This should be measured and reported in line with the client's performance targets. The results of the POE should be used to inform any interventions or improvements in the second year of aftercare and should include 'lessons learnt' that can be applied to future projects.

The POE should be undertaken 12 months after completion and once 75% occupancy has been achieved. This is to enable the building to settle down, for defects and snags to have been resolved in line with the requirements of the main contract, and for the building's systems and occupants to have experienced all the seasons.

Guidance

BSRIA has a series of guides, listed below, that detail how to implement the Soft Landings framework:

- The Soft Landings Framework: for better briefing, design, handover and building performance in use. BG 54/2018. BSRIA 2018.
- Pitstopping - BSRIA's reality-checking process for soft landings. BG 27/2011. Roderic Bunn. BSRIA. 2011.

If you would like to comment on this measure please email **support@skarating.org**

Soft Landings: aftercare (fine tuning, seasonal commissioning & POE) (continued)

- How to procure Soft Landings: Specifications and supporting guidance for clients, consultants and contractors. BG 45/2014. BSRIA 2014.

Pathway to 2030+

This measure is aligned the UK Government's Net Zero Carbon Strategy as it promotes efficient operation of the project space.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Soft Landings: commissioning, handover and training

Criteria

All the following are required to happen:

At design stage

- For all projects the contractor's commissioning manager should be involved as soon as the contractor is appointed, to review the design and to take responsibility for planning and implementing the commissioning process.
- Develop the commissioning programme and method statements, allowing sufficient time for fully commissioning systems in line with BSRIA and CIBSE good practice guides.
- Develop the training and handover plan to document how commissioning and operational information will be effectively passed from installer to operator.

At handover stage:

- Commission all applicable building systems in accordance with BSRIA and CIBSE good practice guides (refer to the Guidance section for relevant commissioning codes), including making good any defects identified during commissioning.
- Test and calibrate monitoring and controls systems to ensure they are providing accurate operational performance data.
- Provide adequate training of staff and occupants prior to handover by:
  - training of operators through their involvement in commissioning and testing;
  - including operators in the final commissioning stage so they understand any defects and characteristics of the system;
  - providing non-technical training for prospective occupants and facilities staff on the design intent, including the use of controls and guidance on maintaining comfort conditions in the space (e.g., avoiding the obstruction of ventilation grilles).
- The technical training should include showing operators how to set up the building engineering systems including BMS and controls and allowing them to test out the system.
- A brief commissioning report should be prepared for the operators that summarises the results of the commissioning exercise. The report should state that any defects that were found have been resolved, and that the system has been set up to maximise plant efficiency.
- Provide operational management instructions to the building manager in an agreed format to allow the operator to effectively manage their space.

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Issue

Project Delivery

ID

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Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Soft Landings: commissioning, handover and training (continued)

Scoping

This measure applies to all fit-outs.

Assessment

At design stage: obtain specifications and/or contracts verifying that the contractor's commissioning manager has been appointed during the design stage. Review the commissioning and handover plan to ensure it has been agreed by the project team and client.

At handover stage: obtain evidence that staff have received training prior to handover, e.g. signed training records, videos of training provided or correspondence and summary commissioning report. Check handover information has been provided to the end user in the format agreed in the handover plan.

At occupancy stage: this measure is not assessed. The measure is achieved by default if it was achieved at the design and handover stages.

Rationale

BSRIA developed guidance on 'Soft Landings' to expand the handover process so that it starts at RIBA stage 2 and continues for 3 years after practical completion. The aim is to shift the focus of good practice from adherence to technical outcomes to performance outcomes, i.e. ensuring that the building benefits the occupants.

For aftercare and fine-tuning activities to add value, it is vital that commissioning is done well. Clients must ensure commissioning (including seasonal and continuous commissioning where relevant) has a high status at project inception. Commissioning must be well-defined and planned, adhered to, and protected from time and cost pressures.

Most problems during handover occur due to insufficient understanding by the occupier's staff of technical systems and their user interfaces; Soft Landings aims to reduce this. Adequately trained staff must be in place before handover and will need proper familiarisation and training about building systems in good time. The methods of communication can range from interactive presentation at various stages of the project, and include newsletters, videos, webinars, and signage. Building readiness programmes should include everything required so the building is ready for handover, such as planning for migration, setting up the BMS and controls (and ensuring the operators know how they work), and the setting up, calibration and cross-checks of the metering and monitoring systems. The contract team should ensure that documentation and training is in place before handover, after which responsibility passes to the building owner and operator.

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Issue

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Version

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If you would like to comment on this measure please email **support@skarating.org**

Soft Landings: commissioning, handover and training (continued)

Many building performance problems are due to poor commissioning and handover. The preparation of a commissioning and handover plan will help reduce this risk. Once completed, a commissioning report needs to be drawn up to indicate that inspection / commissioning has been carried out to ensure that the work complies with building regulations. This should include test results indicating any defects that were found to identify and solve operational fault and maximise plant efficiency. Including operators during final commissioning stages helps them understand defects and how to rectify them. This can be included as part of the training process.

Guidance

BSRIA has a series of guides, listed below, that detail how to implement the Soft Landings framework:

- The Soft Landings Framework: for better briefing, design, handover and building performance in use. BG 54/2018. BSRIA 2018.
- Pitstopping - BSRIA's reality-checking process for Soft Landings. BG 27/2011. Roderic Bunn. BSRIA. 2011.
- How to procure Soft Landings: Specifications and supporting guidance for clients, consultants and contractors. BG 45/2014. BSRIA 2014.
- BSRIA Commissioning Responsibilities Framework - A framework for managing the commissioning process (BG 88/2025); 2025.
- BSRIA - Commissioning Water Systems (BG 2/2010); 2010.
- BSRIA - Pre-Commission Cleaning of Pipework Systems (BG 29/2021); 2021.
- CIBSE Commissioning Code B: Boilers; 2002.
- CIBSE Commissioning Code C: Automatic Controls; 2001.
- CIBSE Commissioning Code L: Lighting; 2003.
- CIBSE Commissioning Code M: Commissioning Management; 2003.
- CIBSE Commissioning Code R: Refrigerating Systems; 2002.
- CIBSE Commissioning Code W: Water Distribution Systems; 2010.
- BSRIA - Commissioning Air Systems (BG 49/2024); 2024

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If you would like to comment on this measure please email **support@skarating.org**

Soft Landings: commissioning, handover and training (continued)

Pathway to 2030+

This measure is aligned the UK Government's Net Zero Carbon Strategy as it promotes efficient operation of the project space.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

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Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Project sustainability delivery plan

Criteria

A project-specific construction phase environmental and sustainability management plan is developed and implemented by the contractor to minimise environmental impacts during the construction stage of the project. The environmental and sustainability management plan should cover the following categories:

- Energy consumption (P01 Reduce Fit-out Energy Use)
- Water consumption (P07 Reduce Fit-out Water Use)
- Waste water, including wash-out and commissioning water (P19 Construction water pollution)
- Materials storage and use (D09 RMP)
- Waste recycling and disposal (D07 SWMP)
- Noise emissions
- Vibration
- Dust and air pollution
- Transport, deliveries and logistics (D59 Construction phase CO_2 emissions)

The plan should identify:

- The likely impacts from the project for each category
- The site procedures to minimise impacts identified
- The roles and responsibilities for the named individuals for ensuring the procedures are implemented and followed throughout the project.
- Audit processes to ensure procedures are followed.

Scoping

This measure applies to all fit-outs.

Assessment

At design stage:

1. Review the project information and obtain a commitment from the client and project team that the requirement for an environmental and sustainability management plan compliant with the criteria, will be included in the procurement information.
2. Review draft procurement documentation and/or contracts to ensure the requirements to implement and follow the environmental and sustainability plan are included in the scope.

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

D44

Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Project sustainability delivery plan (continued)

At handover stage:

1. Review the environmental and sustainability management plan to ensure it is compliant with the criteria. Review the contract to ensure the requirements to implement and follow the environmental and sustainability plan are included in the contract scope.
2. Review site procedures and audit records to demonstrate procedures were followed during construction.

At occupancy stage: this measure is not assessed. The measure is achieved by default if it was achieved at handover stage.

Rationale

The aim of this measure is to ensure design and project impacts carry through the delivery journey, and contractors delivering projects minimise the environmental impact of their works through the implementation of robust procedures to identify and minimise environmental issues.

Guidance

For a general guidance on sustainable procurement and site management refer to the documents:

CIRIA Guide to sustainable procurement in construction.

CIRIA Fit-out environmental good practice on site guide.

UKGBC Sustainable Procurement, practical guide

Supply Chain Sustainability School guidance documents

Pathway to 2030+

This measure is likely to remain in the scheme until effective environmental management of fit-out projects becomes standard.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

D44

Rank

59

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

LCA impact comparison

Criteria

The design team should undertake an options assessment to minimise the impacts of key elements on the project whose impacts include both operational performance and embodied carbon with the aim of selecting the lowest Whole Life Carbon (WLC) options for the space.

Comparisons between 4 out of the 5 following project elements in scope must be undertaken, and an LCA assessment report to be provided that includes the LCA outputs and reasoning on which the final design selections should be based on to achieve the lowest WLC.

1. Light fittings: compare the impact between keeping existing light fittings and saving embodied carbon and their energy consumption related emissions during occupancy.
2. Partition systems: compare key elements of partition systems such as different board products and stud types (metal or timber).
3. Ceilings and acoustics: compare the embodied impacts between installing a full suspended ceiling to an open soffit with acoustic baffles to achieve the same acoustic performance.
4. Pods and cellular spaces: compare the impact between installing pods or fixed cellular rooms based on an agreed change frequency in use informed by the client team's operational predictions and needs.
5. Other product selected by the project team and that forms a major operational and/or embodied impact, and optioneering is considered good practice in reducing WLC emissions.

The following apply in the process and reporting of the impact comparison:

- The findings in the optioneering assessment should be documented in a report aimed at dynamically assisting the design team and client to make good sustainable decisions.
- The assessment report should note the measured impacts as intensity rates using kWh / m^2 GIA / year for operational energy consumption and $kgCO_2e$ / m^2 for embodied carbon impacts for upfront in line with tenancy lease or/and landlord service life years, and a standard WLC study period.
- The study and replacement periods must be informed by standard material repair needs, the tenant lease period or landlord replacement cycles, and all as agreed in the project brief and which reflect true scenarios.
- Energy consumption should be calculated as detailed in D66 Energy Modelling.

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

D87

Rank

60

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

LCA impact comparison (continued)

- Embodied carbon assessments should be calculated as detailed in D89 Embodied carbon assessment.

Scoping

This measure is only in scope if the client and project team decide to undertake LCA comparisons to inform efficient decisions and WLC planning.

Assessment

At design stage: review the LCA comparisons report to ensure it meets the criteria.

At handover stage: if this measure was achieved at design stage, this measure will be considered achieved by default at this stage.

At occupancy stage: if this measure was achieved at handover stage, this measure will be considered achieved by default at this stage.

Rationale

Designing out whole life carbon impacts requires a collaborative effort between the architects, interior designers, mechanical and electrical engineers, building operators and specialists such as lighting design and energy assessors. Testing options early in the design process can generate significantly larger GHG savings than interventions selected after the design is complete. This measure encourages early testing of options to maximise these opportunities which extend into occupancy and numerous years.

Guidance

For more information on embodied intensity targets and how to achieve them, please refer to the UK Net Zero Carbon Buildings Standard.

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon. Use the methodology's reporting template to submit calculations.

UKGBC Net Zero Whole Life Carbon Roadmap.

Fit-out benchmark & assessment tool

Issue

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SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

LCA impact comparison (continued)

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Strategy and Climate Change Act. It supports designing energy efficient and low embodied impact spaces to reduce energy demand and carbon emissions.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

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Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Whole life carbon assessment (WLC)

Criteria

A whole life carbon assessment (WLC) is undertaken and a report issued covering all the project's scope of works, and is undertaken in accordance with the current RICS WLC assessment methodology.

1. Projects with a construction value of £4m and over must as a minimum:
   a) undertake predictive whole life carbon emissions and issue a report during both RIBA stages 2 and 4, and
   b) record actual emissions and issue report as delivered at RIBA stage 6 handover.
2. Projects with a construction value of <£4m can choose one of the two stages below if they can't undertake both:
   a) undertake predictive whole life carbon emissions and issue a report during both RIBA stages 2 and 4, or
   b) record actual emissions as delivered at RIBA stage 6 handover and predict occupancy (B) and end-of-life (C) related emissions.

And,

3. In all above projects, the handover LCA report(s) must be submitted to the BECD database.

The following apply in the process and reporting of the impact comparison:

- The assessment report should be based on the fit-out design and delivery works and should report the measured impacts as intensity in $kgCO_2e$ / m^2. Use NIA of the project or tenancy area for the calculation.
- The study and replacement periods must be informed by standard material repair needs, the tenant lease period, or landlord replacement cycles, and all as agreed in the project brief and which reflect true scenarios.
- Energy consumption should be calculated as detailed in D66 Energy Modelling.
- Embodied carbon assessments should be calculated as detailed in D89 Embodied carbon assessment.

Scoping

This measure is only in scope if the client and project team decide to undertake WLC assessment to inform whole life decisions and impact reduction planning.

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

D47

Rank

71

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Whole life carbon assessment (WLC) (continued)

Assessment

At design stage:

1. Review the WLC report to ensure it meets the criteria during RIBA stages 2 and 4. If the project is £4m or under and is opting to undertake a RIBA stage 6 report only, obtain details of the appointment of the LCA consultant or another competent professional who will be undertaking the work. Use the RICS WLC methodology template for the report required at each stage assessment.

At handover stage:

1. Review the Stage 6 handover actuals WLC report and ensure it meets the criteria. If the project is under £4m or under and opted to undertake RIBA Stage 2 and 4 reports only, then the measure is not assessed again and maintains the design stage assessment result. Use the RICS WLC methodology template for the report required at each stage assessment.
2. Obtain evidence that the WLC data has been uploaded to the BECD for each stage. This can be an email confirmation or screenshot of the upload page when the data is about to be submitted.

At occupancy stage: if this measure was achieved at handover stage, this measure will be considered achieved by default at this stage.

Rationale

Designing out whole life carbon impacts requires a collaborative effort between the architects, interior designers, mechanical and electrical engineers, building operators and specialists such as lighting design and energy assessors. Predicting whole life impacts early in the design process can generate significantly larger GHG savings than interventions selected after the design is complete or occupancy has occurred. This measure encourages early planning and good management practices to maximise efficiency and low GHG emissions over whole life cycles.

Guidance

For more information on embodied intensity targets and how to achieve them, please refer to the UK Net Zero Carbon Buildings Standard.

All embodied carbon measurements to be undertaken and stated along the RICS WLC v2 methodology, including the scope of elements, the functional units used, the reportable calculations and RICS element categories. All carbon reported figures must exclude sequestered carbon. Use the methodology's reporting template to submit calculations.

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

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Rank

71

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Whole life carbon assessment (WLC) (continued)

Built Environment Carbon Database (BECD)
FAQ videos are available on the site on how to upload the carbon data to the online database.

UKGBC Net Zero Whole Life Carbon Roadmap

For guidance on making environmental claims on a product, service, or organisation, refer to the gov.uk document "Guidance: Make an Environmental Claim for Your Product, Service, or Organisation" here.

Pathway to 2030+

This measure aligns with the UK Net Zero Carbon Strategy and Climate Change Act. It supports designing energy efficient and low embodied impact spaces to reduce energy demand and carbon emissions.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

D47

Rank

71

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Reduce fit-out energy use

Criteria

All energy use on site is metered, records are kept, and the site manager regularly reviews usage figures. Meter readings are taken at a frequency appropriate (at least once a fortnight) to the project programme with at least 5 measurements taken over the whole duration.

At the end of the project, total project delivery energy usage in kWh is to be provided to the SKA Assessor who will share with the SKArating technical team.

Scoping

This measure applies to all fit-outs.

Assessment

At design stage: obtain commitment from the project team that the request for the fit-out contractor to meter and keep records of energy use, and at the end of the project, share back to the SKA Assessor, will be included in the project scope and procurement information.

At handover stage: Assessor to review the records of energy use during interim checks of the delivery, and at completion the Assessor should receive the final energy usage to pass to SKArating.

The final energy usage figure is inputted into the project details tab on the SKA online tool.

At occupancy stage: this measure is not assessed. The measure is achieved by default if it was achieved at handover stage.

Rationale

The aim is to encourage the reduction of wasted energy use during the construction process by monitoring energy consumption. Active monitoring helps raise awareness of energy use among construction teams and therefore encourages them to make reductions. Collection of this data will enable the sector to set targets for energy reduction in future fit-out projects.

Guidance

For a general guidance on sustainable procurement and site management refer to the documents:

CIRIA Guide to sustainable procurement in construction.

CIRIA Fit-out environmental good practice on site guide.

UKGBC Sustainable Procurement, practical guide

Supply Chain Sustainability School guidance documents

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

P01

Rank

72

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Reduce fit-out energy use (continued)

Pathway to 2030+

This measure it likely to remain in the scheme up to 2030 to continue to encourage fit-outs to focus on energy reduction. As SKArating gathers better quality data on the amount of energy consumed by fit-outs of different scales and scopes, targets may be introduced to increase the focus on energy consumption reduction rather than just measurement.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

P01

Rank

72

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Reduce fit-out water use

Criteria

All water use on site is metered, records are kept, and the site manager regularly reviews consumption. Meter readings are taken at a frequency appropriate (at least once a fortnight) to the project programme with at least 5 measurements taken over the whole duration.

Where projects do not use or have access to central water supply consumption data, or where there are mixed users from other tenants/users, records of bottled or similar directly procured water consumption sources is to be kept.

At the end of the project, total project delivery water usage in m^3 is to be provided to the SKA Assessor who will share with the SKArating technical team.

Scoping

This measure applies to all fit-outs.

Assessment

At design stage: obtain commitment from the project team that the request for the fit-out contractor to meter, keep records of water use, and at the end of the project share back to the SKA Assessor, will be included in the project scope and procurement information.

At handover stage: Assessor to review the records of water use during interim checks of the delivery, and at completion the Assessor should receive the final water usage to pass to SKArating.

At occupancy stage: this measure is not assessed. The measure is achieved by default if it was achieved at handover stage.

Rationale

The aim is to encourage the reduction of wasted water during the construction process by monitoring water consumption and related impacts. Active monitoring helps raise awareness of water use among construction teams and therefore encourage them to make reductions. Collection of this data will enable the sector to set targets for water reduction in future fit-out projects.

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

P07

Rank

73

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Reduce fit-out water use (continued)

Guidance

For a general guidance on sustainable procurement and site management refer to the documents:

CIRIA Guide to sustainable procurement in construction.

CIRIA Fit-out environmental good practice on site guide.

UKGBC Sustainable Procurement, practical guide

Supply Chain Sustainability School guidance documents

Pathway to 2030+

This measure it likely to remain in the scheme up to 2030 to continue to encourage fit-outs to focus on water demand reduction. As SKArating gathers better quality data on the amount of water consumed by fit-outs of different scales and scopes, targets may be introduced to increase the focus on water consumption reduction rather than just measurement.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

P07

Rank

73

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Building User Guide (BUG)

Criteria

1. A Building user guide (BUG) for the office/facilities manager is produced, which:
   - Avoids using technical jargon and includes clear illustrations (diagrams/photographs) to assist comprehension, complementing the required O&M manuals.
   - Contains simple and clear information on how to operate each item in the scope of the fit-out on a day-to-day basis.
   - The guide should include:
     - A brief explanation of the BUG purpose;
     - an explanation of the design intent and the heating/cooling strategies;
     - an overview of the controls/BMS and access to them;
     - building energy performance records;
     - energy/water metering, monitoring and targeting strategy;
     - summary of areas, occupancy, WC provisions and fire strategy;
     - building waste, recycling, and reuse monitoring record and targeting strategy;
     - principles of material selections and item-specific user operational guidance such as furniture reusing carpet tile recycling and linoleum cleaning;
     - summary of SKA rating scope and score; and
     - reference page for other relevant documents such as the Fixed Asset Register, Resource Management Tracker etc..

2. A BUG for tenants/occupants is produced that is:

- 1-2 pages (the BUG can be in the form of a building app, local signage or an intranet page instead of a written document, if appropriate).
- Avoids technical jargon and includes clear illustration to assist comprehension
- The guide should include:
  - clear information on all controls relevant to the tenants/ occupants (blinds/local heating/lights/etc.);
  - office waste and recycling strategy; and
  - energy/water metering, monitoring and targeted strategy.

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

D45

Rank

83

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Building User Guide (BUG) (continued)

Scoping

This measure applies to all fit-outs.

Assessment

At design stage: A written commitment that a BUG will be produced. The organisation responsible for producing the BUG should have been identified and this work should be within their contract.

At handover stage: Completed BUGs produced for the office/facilities manager and tenants/occupants.

At occupancy stage: Ensure that the BUGs are still accessible to all staff. If the occupancy assessment indicates that changes have been made to the floors being assessed, then check that the BUGs reflect these changes.

Rationale

The aim of the building user guide (BUG) is to reflect the project scope and provide the design and principle thinking behind every SKArating measure and any other good intentions that are unrated, but that instil greener practices in the project.

The guide should inform all users and operators of the greener practices applied to the space to enable occupants to optimise operational building efficiency.

The guide can be part of the operation and maintenance (O&M) manual but must also have the ability to be separated and issued to staff for information annually, or at new staff inductions.

Tenants/occupants will only require day-to-day information on the installed systems in which they have control of e.g. local heating devices, blinds and lighting. Whereas the non-technical staff will need more information on the heating/cooling strategies and the design intent to be able to adequately design furniture layout. The tenant guide can be simple (1-2 pages) and provided as part of an induction pack or/and on the companies' extranet.

Guidance

Each client will have a different way of using the BUG and it can be integrated into staff training manuals provided during inductions or be included as part of a wider A-to-Z staff operation manual.

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

D45

Rank

83

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Building User Guide (BUG) (continued)

Pathway to 2030+

This measure is aligned the UK Government's Net Zero Carbon Strategy as it promotes efficient operation of the project space.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Project Delivery

ID

D45

Rank

83

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Pre-refurbishment audit

Criteria

An experienced member(s) of the design team (or other competent person) is to carry out a pre-refurbishment audit to identify opportunities for retaining and reusing existing products and materials from the proposed refurbishment, and existing space where applicable. The audit must cover the key refurbishment material streams including:

- ceiling systems (see also D13)
- wall finishes (see also D34)
- floor finishes (see also D14)
- desks and tables (see also D15)
- chairs (see also D16)
- storage units (see also D17)
- other loose furniture (see also D18)
- raised access floors (see also D74)
- solid and Glazed partitions (see also M08)
- doors (see also D48)
- joinery and kitchen fittings (see also D34)
- mechanical and electrical services (see also D68 and D46)
- light fittings, controls (see also D38, and D46)

And, the schedule must include a figure of the actual number of items/m^2/volume/tonnage of material along with an estimate of the waste quantities if all material were discarded.

Scoping

This measure applies to all projects. It includes existing client spaces where furniture is used and owned already.

Assessment

At design stage: a completed pre-refurbishment audit covering the key refurbishment waste streams outlined above, is carried out early in the design process (i.e. during Concept Design stage, equivalent to RIBA stage 2) by an experienced designer or other competent person, which identifies opportunities for retaining and reusing existing materials.

At handover stage: this is not re-assessed at this stage, and it maintains the same status as achieved, or not, during the design stage.

At occupancy stage: this measure is not assessed. The measure is achieved by default if it was achieved at handover stage.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D72

Rank

5

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Pre-refurbishment audit (continued)

Rationale

The aim is to identify opportunities for retaining and reusing materials to reduce overall waste production, which is highly wasteful in terms of energy and resource use.

Guidance

UK, Greater London Authority, Circular Economy Statements.

WRAP, the UK Plastics Pact.

EU Circular Economy Action Plan.

Ellen Macarthur Foundation, Plastics.

Zero Avoidable Waste Route Map 2022

Ciria Fit-out environmental good practice on site guide (RP1011)

Products and materials with persistent organic pollutants (POPs) must be managed according to UK Environmental regulations.

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D72

Rank

5

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Design for Whole Life Resource Optimisation

Criteria

Project teams, in both the design and delivery phases of the project, must:

1. demonstrate that the following Design Principles in Table 1 have been applied to the project,
2. hold a minimum of 2 design workshops to develop and implement the principles, one during the concept stage and the other during sub-contractor onboarding, and
3. record the design solutions pursued and general resource management to all its destinations within the Resource Management Plan & Tracker (RMPT).

Table 1 – Designing for Whole life Resource Optimisation[1]

Principle	Description
Principle 1: Design for materials optimisation.	Avoid unnecessary work, fixtures and finishes to reduce requirement for new resources (e.g. short-lived CAT A fit-out). Utilise simple, coordinated and standardised designs that reduce excess off-cuts. Set reuse and recycling targets for all individual Resource Management measures in scope and track their achievement.
Principle 2: Design for future disassembly, repair and adaptation.	Ease of maintenance and repair should be designed for, as well as the easy removal and identification of the original supplier and product details. Utilise off-site manufacture where it assists with future reuse and/or flexibility. Design for flexible layout and functions (e.g. readily demountable partitions). Consider leasing of systems (e.g. Pay per lux lighting). Set design for disassembly, repair and adaptability goals through all individual Materials measures in scope. Consider: Ensure that all individual materials measures within scope support goals for disassembly, repair, and adaptability.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D60

Rank

6

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Design for Whole Life Resource Optimisation (continued)

Principle	Description
Principle 3: Design for reused and high value recycled content.	Reusing and recycling existing resources, e.g. from strip-out/deconstruction process minimises the requirement for new resources. A pre-refurbishment audit should be undertaken (see GPM D72) to assess the potential for reusing elements of any existing fit-out. Additionally, reused and recycled products can be sourced from other projects (e.g. via exchange platforms) and suppliers (e.g. refurbished raised access flooring).

Scoping

This measure applies to all fit-outs.

Assessment

At design stage:

1. Provide design team and direct supplier team workshop notes that respond to the principles in table 1. It is also acceptable to add workshop notes directly into the RMPT schedule.
2. Provide project documentation to demonstrate the Design Principles have been applied through proposed drawings, specifications or discussion notes/minutes.
3. Record and track design solutions into a 'Resource Management Plan & Tracker' and identify the design principle(s) of Table 1 for each resource line as relevant.
4. Evidence that the sub-contractor teams are notified of the need to attend a workshop to develop the principles of table 1 as is relevant to each.

At handover stage:

5. During site setup and sub-contractor appointment stages: Provide documentation to demonstrate Table 1 Design Principles have been carried forwards through the procurement and delivery stages by reviewing record drawings, specifications and/or discussion notes/minutes. It is also acceptable to add new and updated workshop notes directly into the RMPT schedule.
6. Record and track updated design solutions into a 'Resource Management Plan & Tracker' (RMPT) and identify the design principle(s) of Table 1 for each resource line as relevant.

At occupancy stage: this measure is not assessed. It is achieved by default if it was achieved at handover stage.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D60

Rank

6

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Design for Whole Life Resource Optimisation (continued)

Rationale

Commercial fit-out can be very wasteful and inconsiderate of the external impacts associated with short use phases of new materials and products. Whole life resource optimisation is well aligned to the principles of Circular Economy and takes a more holistic view over harvesting from existing assets; design & construction to reduce waste; in-use repair, maintenance and flexibility; maximising future reuse and high value recycling. More efficient use of materials offers a major contribution in reducing the environmental impact of fit-out, including reducing demand for landfill and the depletion of finite natural resources. It can also contribute to the economic efficiency of the sector and of the UK as a whole. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

This measure is in scope for all fit-outs as it includes design solutions, the supply chain and packaging used by material suppliers. Several guidance documents have been used to develop this GPM criteria and they provide further information on specific aspects of Designing for Whole life Resource Optimisation. These include:

Better Building Partnership - Responsible Fit-out Toolkit

The Crown Estate – Sustainability Fit-out guide: Offices

UK, Greater London Authority, Circular Economy Statements.

WRAP, the UK Plastics Pact.

EU Circular Economy Action Plan.

Ellen Macarthur Foundation, Plastics.

Zero Avoidable Waste Route Map 2022

Pathway to 2030+

Increasing the optimal use of resources and processes that drive this in practice, will remain the objective of this measure.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D60

Rank

6

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management – joinery and kitchen fittings

Criteria

Increase circularity of joinery and kitchen fitting elements by complying with all the following:

1. Record the elements in the pre-refurbishment audit
2. Record the elements in the Resource Management Plan & Tracker (RMPT)
3. Confirm reuse on this or another project of a minimum 20% content (measured by mass) of the existing elements (Net Zero aligned approach).

And,

4. Each re-used element is accompanied with a Product Circularity Data Sheet (PCDS) or material passport.

Scoping

This measure applies if joinery and kitchen fitting elements are modified or removed from the site.

Electrical appliances are in scope if they are under 2 years old or have an energy performance in line with the ETL catering categories.

Assessment

At design stage:

1. Verify the listing of the elements in the project's pre-refurbishment audit and RMPT and that the minimum required reuse quantity in the criteria is achieved.
2. Obtain reused installation photos from site or re-use storage facility evidence.
3. Obtain a copy of the PCDS or equivalent material passport for each element in scope.

At handover stage, collate for all systems:

1. Verify that the project's RMPT and SWMP still verify the criteria is achieved.
2. Obtain delivery notes or other confirmation of receipt for the reused elements and that these correspond to the RMPT.
3. Verify that each element's PCDS or material passport is included in the client's asset register or similar asset circularity database.
4. Obtain verification that the PCDS or material passport has been issued to each destination of reuse or storage facility.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D06

Rank

11

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management – joinery and kitchen fittings (continued)

At occupancy stage:

1. If any of the elements in the scoping section of this measure has been changed or added, carry out the handover stage assessment.
2. If this measure was achieved at handover and any of the products in the scoping section have not been changed or added, this measure will be achieved by default.

Rationale

By enabling Circular Economy processes and implementing systems thinking that extends asset lifecycles across projects, we maximise asset circularity. This leads to significant gains in energy and resource efficiency and directly contributes to the conservation of natural resources by increasing item reuse, reducing recycling, and eliminating landfill. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

Best practice for the management of joinery and kitchen assets is achieved through commitment to keeping materials in their highest value form and maximising reuse over recycling, recovery or landfill. This involves having a full understanding of assets and prioritising the highest levels of the waste hierarchy and circularity. Replacing the procurement of virgin materials, ensuring that internal and external reuse is explored and maximised, and when recycling, prioritising the use of waste suppliers with recycling rates of >90% and a zero-to-landfill policy.

The UK Green Business Council recommends various avenues for donation, reuse and refurbishment on their resources page: Resources Archive | UKGBC (filter for 'Circular Economy')

ISO Circular Economy; insights and related standards

ISO 59004:2024, Circular Economy – Vocabulary, principles and guidance for implementation

ISO 59020:2024, Circular Economy — Measuring and assessing circularity performance

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

FIS Reuse Project

Freecycle.org

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D06

Rank

11

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management – joinery and kitchen fittings (continued)

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. The number of reused and refurbished products will increase in each scheme update. The circularity related data provision for each product will also be more strongly driven to support re-use, repair and recycling at end-of-life cycles.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D06

Rank

11

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - partitions

Criteria

1. At least 40% (measured by mass, linear meters or number of items) of removed, relocated and remodelled solid and glazed partitions, partition systems, and wall linings, is:
   - directly reused on this or another project; or
   - returned to a manufacturer via a take back scheme for closed-loop recycling.

   (Net Zero aligned approaches).

And,

2. Each re-used or take-back scheme product, is supplied with a Product Circularity Data Sheet (PCDS).

The remaining percentage and types of partitions should be diverted from landfill.

Closed-loop recycling is classed as the process of recycling a product or material back into a new product of the same material value (e.g. partition recycled into a new partition).

Scoping

This measure applies if the removal or adjustment of existing solid or glazed partitions, and wall lining systems, forms part of the project, including if undertaken as a client direct activity. The measure also applies if a product/material is retained through significant refurbishment and is clearly identified as part of the project scope of works.

Assessment

At design stage:

1. Verify the listing of all existing elements in the project's pre-refurbishment audit and RMPT and that the minimum required reuse quantity in the criteria is achieved.
2. Obtain reused installation photos from site or re-use storage facility evidence, or evidence of the return to the manufacturer's closed-loop scheme via a delivery note/correspondence/photos or certificate as may be applicable.
3. Obtain a copy of the PCDS or equivalent product passport for all products or systems in scope.

At handover stage, collate for all systems:

1. Verify that the project's RMPT and SWMP still verify the criteria is achieved.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D12

Rank

17

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - partitions (continued)

2. Obtain delivery notes, site installation photos, or other confirmation of receipt for the reused elements, or closed-loop recycling schemes, and that these correspond to the RMPT.
3. Verify that the elements PCDS or product passport is included in the client's asset register or similar asset circularity database.
4. Obtain verification that the PCDS or product passport has been issued to each destination of reuse or storage facility.

At occupancy stage:

1. If any of the products in the scoping section of this measure has been changed or added, carry out the handover stage assessment.
2. If this measure was achieved at handover and any of the products in the scoping section have not been changed or added, this measure will be achieved by default.

Rationale

By enabling Circular Economy processes and implementing systems thinking that extends asset lifecycles across projects, we maximise asset circularity. This leads to significant gains in energy and resource efficiency and directly contributes to the conservation of natural resources by increasing item reuse, reducing recycling, and eliminating landfill. This GPM aligns with the UK government's requirement for zero waste to landfill by 2050.

Guidance

Best practice for the management of partition and wall lining assets is achieved through commitment to keeping materials in their highest value form and maximising reuse over recycling, recovery or landfill. This involves having a full understanding of assets and prioritising the highest levels of the waste hierarchy and circularity. Replacing the procurement of virgin materials, ensuring that internal and external reuse is explored and maximised, and when recycling, prioritising the use of waste suppliers with recycling rates of >90% and a zero-to-landfill policy.

Reusing and recycling partition products and materials significantly contributes to Net Zero carbon goals. Reuse extends product lifespan, eliminating end-of-life emissions. Additionally, it avoids the embodied carbon associated with manufacturing new products.

Partition waste, including offcuts and used materials, is generated in nearly all fit-out projects and negatively impacts circularity and resource efficiency. To achieve 100% circularity, projects must prioritise reuse and closed-loop recycling, ensuring products and materials are either repurposed or returned to the manufacturing process.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D12

Rank

17

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - partitions (continued)

The UK Green Business Council recommends various avenues for donation, reuse and refurbishment on their resources page: Resources Archive | UKGBC (filter for 'Circular Economy')

ISO Circular Economy; insights and related standards

ISO 59004:2024, Circular Economy – Vocabulary, principles and guidance for implementation

ISO 59020:2024, Circular Economy – Measuring and assessing circularity performance

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

FIS Reuse Project

Freecycle.org

ASBP Practical Guide for Reuse of Glass Partitioning systems

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. The number of reused and refurbished products will increase in each scheme update. The circularity related data provision for each product will also be more strongly driven to support re-use, repair and recycling at end-of-life cycles.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D12

Rank

17

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management – desks and tables

Criteria

At least 40% (measured by items) of all existing desks and tables are:

- Directly reused either on this or another project; or
- Recycled through a closed-loop scheme (e.g. manufacturers take back scheme).

Remainder 60% (measured by items) of removed desks and tables to be diverted from landfill.

Note: a product can be considered to have been reused where it is salvaged and used for its original intended purpose, or where it is remanufactured/refurbished using minimal additional new elements.

Scoping

This measure applies if the removal of existing desks and tables forms part of the fit-out project, whether part of the main contract or procured directly by the client/occupant. The measure also applies if a product/material is retained through significant refurbishment and is clearly identified as part of the project scope of works.

Assessment

At design stage:

1. Verify the listing of the furniture in the project's pre-refurbishment audit and RMPT and that the minimum required reuse quantity in the criteria is achieved.
2. Obtain reused installation photos from site or re-use storage facility evidence.
3. Obtain a copy of the PCDS or equivalent product passport for each product or system in scope.

At handover stage, collate for all systems:

1. Verify that the project's RMPT and SWMP still verify the criteria is achieved.
2. Obtain delivery notes, site installation photos, or other confirmation of receipt for the reused furniture and that these correspond to the RMPT.
3. Verify that the systems PCDS or product passport is included in the client's asset register or similar asset circularity database.
4. Obtain verification that the PCDS or product passport has been issued to each destination of reuse or storage facility.
5. Where items are sent for recycling, a waste transfer note to be provided.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D15

Rank

24

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - desks and tables (continued)

At occupancy stage:

1. If any of the products in the scoping section of this measure has been changed or added, carry out the handover stage assessment.
2. If this measure was achieved at handover and any of the products in the scoping section have not been changed or added, this measure will be achieved by default.

Rationale

The aim is to maximise furniture circularity for greater energy and resource efficiency. By increasing the number of items retained in use, reduces the number recycled, and eliminate items being landfilled, conserves natural resources by reducing the demand for new products and eliminates the necessity for unsustainable waste practices. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

Reuse can be broken down into four key areas:

- Direct reuse – within the fit-out project or elsewhere within the organisation;
- Donation – to charities, schools, social enterprises, etc.; or
- Sale – to smaller companies and start up organisations, or
- Sale/storage in a reuse facility for immediate resale.

There are commercial organisations that specialise in the donation, refurbishment or other circular solutions for redundant furniture in the market.

Best practice for the management of furniture assets is achieved through commitment to keeping materials in their highest value form and maximising reuse over recycling, recovery or landfill. This involves having a full understanding of assets and prioritising the highest levels of the waste hierarchy and circularity. Replacing the procurement of virgin materials, ensuring that internal and external reuse is explored and maximised, and when recycling, prioritising the use of waste suppliers with recycling rates of >90% and a zero-to-landfill policy.

The UK Green Business Council recommends various avenues for donation, reuse and refurbishment on their resources page: Resources Archive | UKGBC (filter for 'Circular Economy')

ISO Circular Economy; insights and related standards

ISO 59004:2024, Circular Economy – Vocabulary, principles and guidance for implementation

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D15

Rank

24

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - desks and tables (continued)

ISO 59020:2024, Circular Economy – Measuring and assessing circularity performance

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

FIS Reuse Project

Freecycle.org

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. The number of reused and refurbished products will increase in each scheme update. The circularity related data provision for each product will also be more strongly driven to support re-use, repair and recycling at end-of-life cycles.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D15

Rank

24

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management – chairs

Criteria

At least 50% (measured by items) of all existing chairs are:

- directly reused either on this or another project; or
- recycled through a closed-loop scheme (e.g. manufacturers take back scheme).

Each re-used or take-back scheme product, is supplied with a Product Circularity Data Sheet (PCDS).

Remainder 50% (measured by items) of removed chairs to be diverted from landfill.

Note: a product can be considered to have been reused where it is salvaged and used for its original intended purpose, or where most component parts of the product are remanufactured into new products without significant reprocessing.

Scoping

This measure applies if the removal of existing chairs (including soft seating, benches or stools) forms part of the fit-out contract, including if undertaken as a client direct activity. The measure also applies if a product/material is retained through significant refurbishment and is clearly identified as part of the project scope of works.

Items and materials which contain POPs are excluded from the scope of this measure and from the performance calculations noted in the criteria. In the occasion that this extends to 100% of existing items then the measure is not in scope.

Assessment

At design stage:

1. Verify the listing of the furniture in the project's pre-refurbishment audit and RMPT and that the minimum required reuse quantity in the criteria is achieved.
2. Obtain reused installation photos from site or re-use storage facility evidence.
3. Obtain a copy of the PCDS or equivalent product passport for each product or system in scope.

At handover stage collate for all systems:

1. Verify that the project's RMPT and SWMP still verify the criteria is achieved.
2. Obtain delivery notes, site installation photos, or other confirmation of receipt for the reused furniture and that these correspond to the RMPT.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D16

Rank

22

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management – chairs (continued)

3. Verify that the systems PCDS or product passport is included in the client's asset register or similar asset circularity database.
4. Obtain verification that the PCDS or product passport has been issued to each destination of reuse or storage facility.

At occupancy stage: if furniture has been changed or damaged:

1. Ensure the products changed/removed have been returned to the manufacturer, reused on another site, or sent to a reuse facility, and a delivery note is provided as evidence, or
2. If products can't be reused, then are sent for recycling and a waste transfer note is provided.
3. The asset register is updated and a screenshot/copy of it indicating the update is provided as evidence.

Rationale

The aim is to maximise furniture circularity for greater energy and resource efficiency. By increasing the number of items retained in use, reduces the number recycled, and eliminate items being landfilled, conserves natural resources by reducing the demand for new products and eliminates the necessity for unsustainable waste practices. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

Reuse can be broken down into four key areas:

- Direct reuse – within the fit-out project or elsewhere within the organisation;
- Donation – to charities, schools, social enterprises, etc.; or
- Sale – to smaller companies and start up organisations, or
- Sale/storage in a reuse facility for immediate resale.

There are commercial organisations that specialise in the donation, refurbishment or other circular solutions for redundant furniture in the market.

Best practice for the management of furniture assets is achieved through commitment to keeping materials in their highest value form and maximising reuse over recycling, recovery or landfill. This involves having a full understanding of assets and prioritising the highest levels of the waste hierarchy and circularity. Replacing the procurement of virgin materials, ensuring that internal and external reuse is explored and maximised, and when recycling, prioritising the use of waste suppliers with recycling rates of >90% and a zero-to-landfill policy.

Products and materials with persistent organic pollutants (POPs) must be managed according to UK Environmental regulations.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D16

Rank

22

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management – chairs (continued)

The UK Green Business Council recommends various avenues for donation, reuse and refurbishment on their resources page: Resources Archive | UKGBC (filter for 'Circular Economy')

ISO Circular Economy; insights and related standards

ISO 59004:2024, Circular Economy – Vocabulary, principles and guidance for implementation

ISO 59020:2024, Circular Economy — Measuring and assessing circularity performance

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

FIS Reuse Project

Freecycle.org

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. The number of reused and refurbished products will increase in each scheme update. The circularity related data provision for each product will also be more strongly driven to support re-use, repair and recycling at end-of-life cycles.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D16

Rank

22

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management – raised floor systems

Criteria

Increase circularity of raised access floor systems by complying with all the following:

1. Record the system(s) in the pre-refurbishment audit
2. Recording the system(s) in the Resource Management Plan & Tracker (RMPT)
3. Confirm reuse on this or another project of a minimum 80% content (measured by mass) of the modified system. This includes supplier take-back for testing and reselling. (Net Zero aligned approach).

And,

4. Each re-used product is accompanied with a Product Circularity Data Sheet (PCDS) or material passport.

Scoping

This measure applies if raised access flooring panels are modified or removed from the site.

System pedestals are not currently in the scope of this measure due to re-use warranties.

Assessment

At design stage:

1. Verify the listing of the system in the project's pre-refurbishment audit and RMPT and that the minimum required reuse quantity in the criteria is achieved.
2. Obtain reused installation photos from site or re-use storage facility evidence
3. Obtain a copy of the PCDS or equivalent material passport for each product or system in scope.

At handover stage, collate for all systems:

1. Verify that the project's RMPT and SWMP still verify the criteria is achieved.
2. Obtain delivery notes or other confirmation of receipt for the reused systems and that these correspond to the RMPT.
3. Verify that the systems PCDS or material passport is included in the client's asset register or similar asset circularity database.
4. Obtain verification that the PCDS or material passport has been issued to each destination of reuse or storage facility.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D74

Rank

28

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - raised floor systems (continued)

At occupancy stage: this measure is not assessed. The measure is achieved by default if it was achieved at handover stage.

Rationale

By enabling Circular Economy processes and implementing systems thinking that extends asset lifecycles across projects, we maximise asset circularity. This leads to significant gains in energy and resource efficiency and directly contributes to the conservation of natural resources by increasing item reuse, reducing recycling, and eliminating landfill. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

Best practice for the management of redundant raised floor systems is achieved through commitment to keeping materials in their highest value form and maximising reuse over recycling, recovery or landfill. This involves having a full understanding of assets and prioritising the highest levels of the waste hierarchy and circularity. Replacing the procurement of virgin materials, ensuring that internal and external reuse is explored and maximised, and when recycling, prioritising the use of waste suppliers with recycling rates of >90% and a zero-to-landfill policy.

The UK Green Business Council recommends various avenues for donation, reuse and refurbishment on their resources page: Resources Archive | UKGBC (filter for 'Circular Economy')

UKGBC Circular Economy Innovations Insights (page 8)

ISO Circular Economy; insights and related standards

ISO 59004:2024, Circular Economy – Vocabulary, principles and guidance for implementation

ISO 59020:2024, Circular Economy — Measuring and assessing circularity performance

ISO 59040:2025, Circular Economy - Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

FIS Reuse Project

Freecycle.org

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D74

Rank

28

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - raised floor systems (continued)

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. The number of reused and refurbished products will increase in each scheme update. The circularity related data provision for each product will also be more strongly driven to support re-use, repair and recycling at end-of-life cycles.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D74

Rank

28

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - ceilings

Criteria

1. At least 40% (measured by volume, meter squares or number of items) of removed and offcut suspended metal or fibre ceiling tiles, or planks, is:
   - directly reused on this or another project; or
   - returned to a manufacturer via a take back scheme for closed-loop recycling.

Or,

2. At least 40% (measured by volume, meter squares or number of items) of removed and offcut acoustic baffles or acoustic surface panels is:
   - directly reused on this or another project; or
   - Returned to a manufacturer via a take back scheme for closed-loop recycling; or
   - Returned to a manufacturer via a take back scheme for open loop recycling

And,

3. Each re-used or take-back scheme product, is supplied with a Product Circularity Data Sheet (PCDS).

The remaining percentage and types of ceilings should be diverted from landfill.

NOTE: Closed loop recycling is classed as the process of recycling a product or material back into a new product of the same material value (e.g. ceiling into a new ceiling).

Scoping

This measure applies if the removal of existing or new ceilings and ceiling features (including suspended systems, surface mounted, stretched, or hanging panels) forms part of the fit-out contract, including if undertaken as a client direct activity. The measure also applies if a product/material is retained through significant refurbishment and is clearly identified as part of the project scope of works.

Assessment

At design stage:

1. Verify the listing of all existing ceilings in the project's pre-refurbishment audit and RMP tracker and that the minimum required reuse quantity in the criteria is achieved.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D13

Rank

27

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - ceilings (continued)

2. Obtain reused installation photos from site or re-use storage facility evidence, or evidence of the return to the manufacturer's closed-loop scheme via a delivery note/correspondence/photos or certificate as may be applicable.
3. Obtain a copy of the PCDS or equivalent product passport for each product or system in scope.

At handover stage, collate for all systems:

1. Verify that the project's RMPT and SWMP still verify the criteria is achieved.
2. Obtain delivery notes, site installation photos, or other confirmation of receipt for the reused finishes, or closed-loop recycling schemes, and that these correspond to the RMPT.
3. Verify that the finishes PCDS or product passport is included in the client's asset register or similar asset circularity database.
4. Obtain verification that the PCDS or product passport has been issued to each destination of reuse or storage facility.

At occupancy stage: if ceilings have been changed or damaged:

1. Ensure the products changed/removed have been returned to the manufacturer, reused on another site, or sent to a reuse facility, and a delivery note is provided as evidence, or
2. If products can't be reused, then are sent for recycling and a waste transfer note is provided.
3. The asset register is updated and a screenshot/copy of it indicating the update is provided as evidence.

Rationale

By enabling Circular Economy processes and implementing systems thinking that extends asset lifecycles across projects, we maximise asset circularity. This leads to significant gains in energy and resource efficiency and directly contributes to the conservation of natural resources by increasing item reuse, reducing recycling, and eliminating landfill. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

Best practice for the management of ceiling assets is achieved through commitment to keeping materials in their highest value form and maximising reuse over recycling, recovery or landfill. This involves having a full understanding of assets and prioritising the highest levels of the waste hierarchy and circularity. Replacing the procurement of virgin materials, ensuring that internal and external reuse is explored and maximised, and when recycling, prioritising the use of waste suppliers with recycling rates of >90% and a zero-to-landfill policy.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D13

Rank

27

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - ceilings (continued)

Reusing and recycling ceiling products and materials significantly contributes to Net Zero carbon goals. Reuse extends product lifespan, eliminating end-of-life emissions. Additionally, it avoids the embodied carbon associated with manufacturing new products. The generation of waste contributes to scope 3 emissions, which encompass all indirect emissions that occur in a company's value chain. The reuse of ceilings and prevention of waste can help to reduce these emissions and support organisations' Net Zero strategies.

Ceilings waste, including offcuts and used materials, is generated in nearly all fit-out projects and negatively impacts circularity and resource efficiency. To achieve 100% circularity, projects must prioritize reuse and closed-loop recycling, ensuring products and materials are either repurposed or returned to the manufacturing process.

The UK Green Business Council recommends various avenues for donation, reuse and refurbishment on their resources page: Resources Archive | UKGBC (filter for 'Circular Economy')

ISO Circular Economy; insights and related standards

ISO 59004:2024, Circular Economy – Vocabulary, principles and guidance for implementation

ISO 59020:2024, Circular Economy – Measuring and assessing circularity performance

ISO 59040:2025, Circular Economy – Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

FIS Reuse Project

Freecycle.org

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D13

Rank

27

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - ceilings (continued)

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. The number of reused and refurbished products will increase in each scheme update. The circularity related data provision for each product will also be more strongly driven to support re-use, repair and recycling at end-of-life cycles.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D13

Rank

27

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management – light fittings

Criteria

1. At least 50% (measured by number of items) of removed and relocated light fittings are:
    - Directly reused on this or another project with or without upgrades to the fitting; or
    - Returned to a manufacturer via a take back scheme for closed-loop recycling.

    (Net Zero aligned approaches).

And,

2. Each re-used or take-back scheme product, is supplied with a Product Circularity Data Sheet (PCDS).

The remaining light fittings must be divered from landfill in line with The Waste Electrical and Electronic Equipment Regulations 2013 (WEEE Regulations).

Scoping

This measure is in scope if existing light fittings as listed below, are relocated or removed:

- Architectural and integrated fittings
- Decorative or non-integrated light fittings
- Plug-in and task light fittings

Note: for any re-used products, project teams should be mindful of the operational energy efficiency criteria under measures E04 Energy efficient light fittings and D87 LCA impact comparison analysis measures.

Assessment

At design stage:

1. Verify the listing of the products in the project's pre-refurbishment audit and RMP tracker.
2. Obtain a copy of the PCDS or equivalent material passport for any equipment reused on this or another site.

At handover stage, collate for all products:

1. Verify that the project's RMP tracker and SWMP still verify the criteria is achieved.
2. Obtain delivery notes or other confirmation of receipt for reused products and that these correspond to the RMP tracker.
3. Verify that all remainder products have been managed in compliance with the WEEE Regulations.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D38

Rank

32

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management – light fittings (continued)

4. Verify that each product's PCDS or material passport is included in the client's asset register or similar asset circularity database.
5. Obtain verification that the PCDS or material passport has been issued to each destination of reuse or storage facility.

At occupancy stage:

1. If any of the products in the scoping section of this measure has been changed or added, carry out the handover stage assessment.
2. If this measure was achieved at handover and any of the products in the scoping section have not been changed or added, this measure will be achieved by default.

Rationale

By enabling Circular Economy processes and implementing systems thinking that extends asset lifecycles across projects, we maximise asset circularity. This leads to significant gains in energy and resource efficiency and directly contributes to the conservation of natural resources by increasing item reuse, reducing recycling, and eliminating landfill. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

Best practice for the management of light fitting assets is achieved through commitment to keeping materials in their highest value form and maximising reuse over recycling, recovery or landfill. This involves having a full understanding of assets and prioritising the highest levels of the waste hierarchy and circularity. Replacing the procurement of virgin materials, ensuring that internal and external reuse is explored and maximised, and when recycling, prioritising the use of waste suppliers with recycling rates of >90% and a zero-to-landfill policy.

The UK Green Business Council recommends various avenues for donation, reuse and refurbishment on their resources page: Resources Archive | UKGBC (filter for 'Circular Economy')

ISO Circular Economy; insights and related standards

ISO 59004:2024, Circular Economy – Vocabulary, principles and guidance for implementation

ISO 59020:2024, Circular Economy – Measuring and assessing circularity performance

ISO 59040:2025, Circular Economy – Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D38

Rank

32

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management – light fittings (continued)

FIS Reuse Project

Freecycle.org

Recolight – Circular Economy services for light fittings

UK WEEE Regulations guidance

WEEE: reuse and treatment guidance

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. The number of reused and refurbished products will increase in each scheme update. The circularity related data provision for each product will also be more strongly driven to support re-use, repair and recycling at end-of-life cycles.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D38

Rank

32

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - HVAC equipment

Criteria

Increase circularity of HVAC equipment by complying with all the following:

1. Record all equipment in the pre-refurbishment audit
2. Record all equipment in the Resource Management Plan & Tracker (RMPT)

And,

3. If re-use of equipment has occurred on this or another site, it is accompanied with a Product Circularity Data Sheet (PCDS) or material passport.

Scoping

This measure applies if existing or relocated HVAC equipment as listed below, are in scope:

- Heat Pumps and fan coil units
- Heat recovery units
- Air handling units

Note: any re-used equipment should be mindful of the operational energy efficiency criteria under measures E05 Energy efficient heat pumps, E31 Energy efficient ventilation equipment and E85 Energy Use Intensity.

Assessment

At design stage:

1. Verify the listing of the equipment in the project's pre-refurbishment audit and RMPT.
2. Obtain a copy of the PCDS or equivalent material passport for any equipment reused on this or another site.

At handover stage, collate for all systems:

1. Verify that the project's RMPT and SWMP still verify the criteria is achieved.
2. Obtain delivery notes or other confirmation of receipt for reused equipment and that these correspond to the RMPT.
3. Verify that each equipment's PCDS or material passport is included in the client's asset register or similar asset circularity database.
4. Obtain verification that the PCDS or material passport has been issued to each destination of reuse or storage facility.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D68

Rank

37

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - HVAC equipment (continued)

At occupancy stage: this measure is not assessed. The measure is achieved by default if it was achieved at handover stage.

Rationale

By enabling Circular Economy processes and implementing systems thinking that extends asset lifecycles across projects, we maximise asset circularity. This leads to significant gains in energy and resource efficiency and directly contributes to the conservation of natural resources by increasing item reuse, reducing recycling, and eliminating landfill. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

Best practice for the management of HVAC system assets is achieved through commitment to keeping materials in their highest value form and maximising reuse over recycling, recovery or landfill. This involves having a full understanding of assets and prioritising the highest levels of the waste hierarchy and circularity. Replacing the procurement of virgin materials, ensuring that internal and external reuse is explored and maximised, and when recycling, prioritising the use of waste suppliers with recycling rates of >90% and a zero-to-landfill policy.

The UK Green Business Council recommends various avenues for donation, reuse and refurbishment on their resources page: Resources Archive | UKGBC (filter for 'Circular Economy')

ISO Circular Economy; insights and related standards

ISO 59004:2024, Circular Economy – Vocabulary, principles and guidance for implementation

ISO 59020:2024, Circular Economy – Measuring and assessing circularity performance

ISO 59040:2025, Circular Economy – Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

FIS Reuse Project

Freecycle.org

UK WEEE Regulations guidance

WEEE: reuse and treatment guidance

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D68

Rank

37

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - HVAC equipment (continued)

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. The number of reused and refurbished products will increase in each scheme update. The circularity related data provision for each product will also be more strongly driven to support re-use, repair and recycling at end-of-life cycles.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D68

Rank

37

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - floor coverings

Criteria

1. At least 80% (measured by area or number of items) of removed and offcut carpet tiles are:
   - directly reused on this or another project; or
   - returned to a manufacturer via a take back scheme for closed-loop recycling.
2. At least 40% (measured by area or number of items) of removed and offcut vinyl flooring and LVT is:
   - directly reused on this or another project; or
   - returned to a manufacturer via a take back scheme for closed-loop recycling; or
   - returned to a manufacturer via a take back scheme for open loop recycling
3. At least 80% of removed timber flooring (or any other hard floor finish that can be lifted) is:
   - directly reused on this or another project.

And,

4. each re-used or take-back scheme product, is supplied with a Product Circularity Data Sheet (PCDS).

The remaining percentage and types of floor finishes should be diverted from landfill.

NOTE: Closed-loop recycling is classed as the process of recycling a product or material back into a new product of the same material value (E.g. Carpet into a new carpet).

Scoping

This measure applies for both existing and new floor finishes that form part of the fit-out contract, including if undertaken as a client direct activity. The measure also applies if a product/material is retained through significant refurbishment and is clearly identified as part of the project scope of works.

Assessment

At design stage:

1. Verify the listing of all existing finishes in the project's pre-refurbishment audit and RMP tracker and that the minimum required reuse quantity in the criteria is achieved.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D14

Rank

33

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - floor coverings (continued)

2. Obtain reused installation photos from site or re-use storage facility, or evidence of the return to the manufacturer's closed-loop scheme via a delivery note/correspondence/photos or certificate as may be applicable.
3. Obtain a copy of the PCDS or equivalent product passport for all products or systems in scope.

At handover stage: collate for all systems:

1. For reuse on this project:
    - Verify that the project's RMP tracker and SWMP still verify the criteria is achieved.
    - Verify that the finishes PCDS or product passport is included in the client's asset register or similar asset circularity database.
2. For reuse on another project:
    - Obtain delivery notes, site installation photos, or other confirmation of receipt for the reused finishes, or closed-loop recycling schemes, and that these correspond to the RMP tracker.
    - Obtain verification that the PCDS or product passport has been issued to each destination of reuse or storage facility.

At occupancy stage:

- If any of the products in the scoping section of this measure has been changed or added, carry out the handover stage assessment.
- If this measure was achieved at handover and any of the products in the scoping section have not been changed or added, this measure will be achieved by default.

Rationale

By enabling Circular Economy processes and implementing systems thinking that extends asset lifecycles across projects, we maximise asset circularity. This leads to significant gains in energy and resource efficiency and directly contributes to the conservation of natural resources by increasing item reuse, reducing recycling, and eliminating landfill. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

Reusing and recycling flooring materials significantly contributes to Net Zero carbon goals. Reuse extends product lifespan, eliminating end-of-life emissions. Additionally, it avoids the embodied carbon associated with manufacturing new products.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D14

Rank

33

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - floor coverings (continued)

Floor covering waste, including offcuts and used materials, is generated in nearly all fit-out projects and negatively impacts circularity and resource efficiency. To achieve 100% circularity, we must prioritise reuse and closed-loop recycling, ensuring flooring materials are either repurposed or returned to the manufacturing process.

The three main sustainable options for dealing with floor finish waste are:

- Reuse, on or offsite;
- Closed-loop recycling via a manufacturer's closed-loop take back scheme;
- Open loop recycling, to be made into an alternative product.

Many flooring manufacturers are now investing in take-back programs, prioritising product reuse whenever possible. When reuse is not feasible, they focus on closed-loop recycling, transforming materials into new flooring products. Dedicated businesses also specialize in flooring reuse.

To successfully manage flooring waste circularly, it's crucial to assess the type, quality, and quantity of existing flooring early in the project. Careful deconstruction and appropriate storage are essential to maximise reusability.

The UK Green Business Council recommends various avenues for donation, reuse and refurbishment on their resources page: Resources Archive | UKGBC (filter for 'Circular Economy')

ISO Circular Economy; insights and related standards

ISO 59004:2024, Circular Economy – Vocabulary, principles and guidance for implementation

ISO 59020:2024, Circular Economy – Measuring and assessing circularity performance

ISO 59040:2025, Circular Economy – Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

FIS Reuse Project

Freecycle.org

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D14

Rank

33

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - floor coverings (continued)

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. The number of reused and refurbished products will increase in each scheme update. The circularity related data provision for each product will also be more strongly driven to support re-use, repair and recycling at end-of-life cycles.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D14

Rank

33

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - storage units

Criteria

At least 30% (measured by items) of all existing storage units are:

- directly reused either on this or another project; or
- recycled through a closed-loop scheme (e.g. manufacturers take back scheme).

Remainder 70% (measured by items) of removed storage units to be diverted from landfill.

Note: a product can be considered to have been reused where it is salvaged and used for its original intended purpose, or where the majority of component parts of the product are remanufactured into new products without significant reprocessing.

Scoping

This measure applies if the removal of existing storage units forms part of the fit-out contract, including if undertaken as a client direct activity. The measure also applies if a product/material is retained through significant refurbishment and is clearly identified as part of the project scope of works.

Assessment

At design stage:

1. Verify the listing of the furniture in the project's pre-refurbishment audit and RMPT and that the minimum required reuse quantity in the criteria is achieved.
2. Obtain reused installation photos from site or re-use storage facility evidence.
3. Obtain a copy of the PCDS or equivalent product passport for each product or system in scope.

At handover stage, collate for all systems:

1. Verify that the project's RMPT and SWMP still verify the criteria is achieved.
2. Obtain delivery notes, site installation photos, or other confirmation of receipt for the reused furniture and that these correspond to the RMPT.
3. Verify that the systems PCDS or product passport is included in the client's asset register or similar asset circularity database.
4. Obtain verification that the PCDS or product passport has been issued to each destination of reuse or storage facility.
5. Where items are sent for recycling, a waste transfer note to be provided.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D17

Rank

38

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - storage units (continued)

At occupancy stage: if furniture has been changed or damaged:

1. Ensure the products changed/removed have been returned to the manufacturer, reused on another site, or sent to a reuse facility, and a delivery note is provided as evidence, or
2. If products can't be reused, then are sent for recycling and a waste transfer note is provided.
3. The asset register is updated and a screenshot/copy of it indicating the update is provided as evidence.

Rationale

The aim is to maximise furniture circularity for greater energy and resource efficiency. By increasing the number of items retained in use, reduces the number recycled, and eliminates items being landfilled, conserves natural resources by reducing the demand for new products and eliminates the necessity for unsustainable waste practices. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

Reuse can be broken down into three key areas:

- direct reuse – within the fit-out project or elsewhere within the organisation;
- donation – to charities, schools, social enterprises, etc.; or
- sale – to smaller companies and start up organisations, or
- sale/storage in a reuse facility for immediate resale.

There are commercial organisations that specialise in the donation, refurbishment or other circular solutions for redundant furniture in the market.

Best practice for the management of furniture assets is achieved through commitment to keeping materials in their highest value form and maximising reuse over recycling, recovery or landfill. This involves having a full understanding of assets and prioritising the highest levels of the waste hierarchy and circularity. Replacing the procurement of virgin materials, ensuring that internal and external reuse is explored and maximised, and when recycling, prioritising the use of waste suppliers with recycling rates of >90% and a zero-to-landfill policy.

The UK Green Business Council recommends various avenues for donation, reuse and refurbishment on their resources page: Resources Archive | UKGBC (filter for 'Circular Economy')

ISO Circular Economy; insights and related standards

ISO 59004:2024, Circular Economy – Vocabulary, principles and guidance for implementation

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D17

Rank

38

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - storage units (continued)

ISO 59020:2024, Circular Economy – Measuring and assessing circularity performance

ISO 59040:2025, Circular Economy – Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

FIS Reuse Project

Freecycle.org

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. The number of reused and refurbished products will increase in each scheme update. The circularity related data provision for each product will also be more strongly driven to support re-use, repair and recycling at end-of-life cycles.

This measure is contributing to the following UN SDGs:

Issue

Resource Management

ID

D17

Rank

38

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - Cables, pipes, ducts and lighting controls

Criteria

1. The following products and materials in the scope of the project must all be recorded and quantified according to the following technology and material group types:

    a. Cables and wiring
    b. HVAC pipes
    c. HVAC ventilation ducts and grills
    d. Lighting Controls

And, where project build costs are £5m and over also:

    e. Cable containment

And,

2. Where products are re-used or are part of a take-back scheme, is supplied with a Product Circularity Data Sheet (PCDS).

Scoping

This measure is in scope if any one of the technologies or materials noted in the table below are new, relocated or removed:

1. Cables

    a. Any cables that relate to:
    - Lighting and PIR
    - HVAC
    - AMT/BMS system
    - CO_2 and VOC monitors
    - IT/AV
    - Metering
    - Leakage detection system

    b. Armoured cables

2. HVAC pipes, ducts and grilles

    a. Ventilation ducts
    b. HVAC grilles
    c. HVAC pipes

3. PIRS and lighting controls

    a. PIR and daylight sensors
    b. lighting controls

4. For projects with a build cost of £5m or above:

    a. The following cabling-related containment elements must be recorded:
    - trunking for any of the cable types
    - baskets for any of the cable types
    - trays for any of the cable types

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D46

Rank

40

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - Cables, pipes, ducts and lighting controls (continued)

And:

b. Optionally:
- water supply pipes
- wastewater pipes
- landscaping-related pipes (e.g. drainage pipe)

Assessment

At design stage:

1. Verify the listing of the existing products in the project's pre-refurbishment audit and RMPT.
2. Obtain a copy of the PCDS or equivalent material passport for any equipment reused on this or another site.
3. Verify the requirement for recording and quantifying of all new products forms part of the specialist contractors' scope of works.

At handover stage, collate for all products:

1. Verify that the project's RMPT and SWMP still verify the criteria is achieved.
2. Verify that each product's PCDS or material passport is included in the client's asset register or similar asset circularity database.
3. Obtain verification that the PCDS or material passport has been issued to each destination of reuse or storage facility.
4. Verify that the quantity records are complete and shared with the client to add in their asset register and to the embodied carbon modeller when present on the project.

At occupancy stage:

1. If any of the products in the scoping section of this measure has been changed or added, carry out the handover stage assessment.
2. If this measure was achieved at handover and any of the products in the scoping section have not been changed or added, this measure will be achieved by default.

Rationale

By enabling Circular Economy processes and implementing systems thinking that extends asset lifecycles across projects, we maximise asset circularity. This leads to significant gains in energy and resource efficiency and directly contributes to the conservation of natural resources by increasing item reuse, reducing recycling, and eliminating landfill. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D46

Rank

40

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - Cables, pipes, ducts and lighting controls (continued)

Guidance

Best practice for the management of MEP related assets is achieved through commitment to keeping materials in their highest value form and maximising reuse over recycling, recovery or landfill. This involves having a full understanding of assets and prioritising the highest levels of the waste hierarchy and circularity. Replacing the procurement of virgin materials, ensuring that internal and external reuse is explored and maximised, and when recycling, prioritising the use of waste suppliers with recycling rates of >90% and a zero-to-landfill policy.

The UK Green Business Council recommends various avenues for donation, reuse and refurbishment on their resources page: Resources Archive | UKGBC (filter for 'Circular Economy')

ISO Circular Economy; insights and related standards

ISO 59004:2024, Circular Economy – Vocabulary, principles and guidance for implementation

ISO 59020:2024, Circular Economy – Measuring and assessing circularity performance

ISO 59040:2025, Circular Economy – Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

FIS Reuse Project

Freecycle.org

UK WEEE Regulations guidance

WEEE: reuse and treatment guidance

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D46

Rank

40

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - Cables, pipes, ducts and lighting controls (continued)

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. The number of reused and refurbished products will increase in each scheme update. The circularity related data provision for each product will also be more strongly driven to support re-use, repair and recycling at end-of-life cycles.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D46

Rank

40

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - doors

Criteria

1. At least 50% (measured by volume, or number of items) of removed, relocated and remodelled solid and glazed doors is:
   - directly reused on this or another project; or
   - returned to a manufacturer via a take back scheme for closed-loop recycling.

   (Net Zero aligned approaches).

And,

2. each re-used or take-back scheme product, is supplied with a Product Circularity Data Sheet (PCDS).

The remaining percentage and types of doors should be diverted from landfill.

NOTE: Closed-loop recycling is classed as the process of recycling a product or material back into a new product of the same material value (e.g. pre-used door into a new door).

Scoping

This measure applies if the removal or adjustment of existing solid or glazed doors forms part of the project, including if undertaken as a client direct activity. The measure also applies if a product/material is retained through significant refurbishment and is clearly identified as part of the project scope of works.

Assessment

At design stage:

1. Verify the listing of all existing elements in the project's pre-refurbishment audit and RMPT and that the minimum required reuse quantity in the criteria is achieved.
2. Obtain reused installation photos from site or re-use storage facility evidence, or evidence of the return to the manufacturer's closed-loop scheme via a delivery note/correspondence/photos or certificate as may be applicable.
3. Obtain a copy of the PCDS or equivalent product passport for all products or systems in scope.

At handover stage, collate for all systems:

1. Verify that the project's RMPT and SWMP still verify that the criteria is achieved.
2. Obtain delivery notes, site installation photos, or other confirmation of receipt for the reused elements, or closed-loop recycling schemes, and that these correspond to the RMP tracker.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D48

Rank

46

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - doors (continued)

3. Verify that the elements PCDS or product passport is included in the client's asset register or similar asset circularity database.
4. Obtain verification that the PCDS or product passport has been issued to each destination of reuse or storage facility.

At occupancy stage, if doors have been changed or damaged:

1. Ensure the products which have been changed/removed have been returned to the manufacturer, reused on another site, or sent to a reuse facility, and a delivery note is provided as evidence, or
2. If products can't be reused, they are sent for recycling and a waste transfer note is provided.
3. The asset register is updated and a screenshot/copy of it indicating the update is provided as evidence.

Rationale

By enabling Circular Economy processes and implementing systems thinking that extends asset lifecycles across projects, we maximise asset circularity. This leads to significant gains in energy and resource efficiency and directly contributes to the conservation of natural resources by increasing item reuse, reducing recycling, and eliminating landfill. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

Best practice for the management of redundant doors is achieved through commitment to keeping materials in their highest value form and maximising reuse over recycling, recovery or landfill. This involves having a full understanding of assets and prioritising the highest levels of the waste hierarchy and circularity. Replacing the procurement of virgin materials, ensuring that internal and external reuse is explored and maximised, and when recycling, prioritising the use of waste suppliers with recycling rates of >90% and a zero-to-landfill policy.

Reusing and recycling door products and materials significantly contributes to Net Zero carbon goals. Reuse extends product lifespan, eliminating end-of-life emissions. Additionally, it avoids the embodied carbon associated with manufacturing new products. The generation of waste contributes to scope 3 emissions, which encompass all indirect emissions that occur in a company's value chain. The reuse of doors and prevention of waste can help to reduce these emissions and support organisations' net zero strategies.

Door waste is generated in nearly all fit-out projects and negatively impacts circularity and resource efficiency. To achieve 100% circularity, we must prioritise reuse and closed-loop recycling,

Fit-out benchmark & assessment tool

Issue

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If you would like to comment on this measure please email **support@skarating.org**

Resource Management - doors (continued)

ensuring products and materials are either repurposed or returned to the manufacturing process.

The UK Green Business Council recommends various avenues for donation, reuse and refurbishment on their resources page: Resources Archive | UKGBC (filter for 'Circular Economy')

ISO Circular Economy; insights and related standards

ISO 59004:2024, Circular Economy – Vocabulary, principles and guidance for implementation

ISO 59020:2024, Circular Economy – Measuring and assessing circularity performance

ISO 59040:2025, Circular Economy – Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

FIS Reuse Project

Freecycle.org

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. The number of reused and refurbished products will increase in each scheme update. The circularity related data provision for each product will also be more strongly driven to support re-use, repair and recycling at end-of-life cycles.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

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Rank

46

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Recyclable waste storage space

Criteria

The following criteria must all be achieved:

1. An operational waste management strategy is developed for the project space.
2. Allocated area(s) are provided for the storage of recyclable waste generated by the client's operations and based on the waste management strategy's recommendations. These space(s) must be:
   a) adequately sized in line with the operational activities of the client or occupant and waste collection frequencies. Appropriate volume containers must be provided for all the different waste splits. Volume calculations are undertaken to get the correct volume provision in the space(s),
   b) accessible to both building occupants and waste collectors, and
   c) clearly marked as an area for managed waste. Signage/ labels must include information on what cannot be recycled/ placed in a particular bin to avoid contamination. This is especially important to avoid food and grease residue on non-compostable recyclables.

And,

3. Different streams of recycling collection in the strategy and office space must include as a minimum: Glass, Metal, Plastic, Cardboard, Paper and Food streams (where relevant), ensuring that Food waste is separated from the rest.
4. Include sections in the strategy for the reduction of plastic waste towards future achievement of a Zero Plastics policy.

Plastics here is referred to as single-use petrochemical-based materials. It does not refer to bio-based plastics for example.

Scoping

This measure applies to all fit-out projects under CAT A+ and CAT B types, and is optional for CAT A projects where relevant.

Assessment

At design stage:

1. Review the waste management strategy document to check calculation evidence of the appropriate volume per stream of containers/bins and their number in the space, based on information shared from the new occupants of the space and

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D08

Rank

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Recyclable waste storage space (continued)

the Landlord or building manager, making sure that the tenancy recycling strategy is aligned with the building waste management system in place (or to be improved if required), the occupant's business and the local waste collection frequency.

2. Check drawings to ensure this area is marked and shown as being specifically for recyclable waste storage.

At handover stage:

1. Carry out a site visit to confirm that the area exists and has appropriate signage and sizing,
2. Photographs should be taken showing signage and waste bins.

At occupancy stage:

1. Carry out a site visit to confirm that the area exists and is in regular use. It does not have to be the same space if the volumes set out at the design stage are being collected at the occupancy stage.
2. Photographs showing the top view of each waste stream should be taken as an estimate of contamination rate
3. If waste records/tickets are available from the facilities team/third-party, these may be submitted as well.

Rationale

Enable inherited downstream and new (all) material and product circularity on any project boundary or use, through delivery and operational processes. Different amounts of paper, cardboard, plastic material (often used for packaging), glass, metal and food waste are part of office-based operations and much of this can be recycled. To make recycling schemes effective, the material needs to be collected quickly and efficiently. This means provision of enough space with appropriate fire protection for storage and access for collection. A dedicated storage space should be provided for waste, separated into spaces for different material types to increase recycling operational waste rates. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

The amount of storage space required for recyclable waste is dependent on the occupant's nature of business. Therefore, an occupancy waste management strategy is required at the design stage to demonstrate that the space provision is consistent with the volume of operational waste streams generated and aligned with the landlord and building-wide operation.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Recyclable waste storage space (continued)

New business recycling legislation through the Environmental Act 2021, which is effective from 1st April 2025. Press release online link here.

UK Gov - Dispose of business or commercial waste.

WRAP Workplace recycling guide.

WRAP – the waste and resource action programme.

Pathway to 2030+

Increasing the circular management of resources in operation will remain the objective of this measure. Reduction and avoidance of single use waste streams, pollutants of nature and contributors to human ill-health will be targeted with more focus in future updates.

This measure is contributing to the following UN SDGs:

Issue

Resource Management

ID

D08

Rank

52

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management – other loose furniture

Criteria

At least 30% (measured by items) of all existing other loose furniture items are:

- directly reused either on this or another project; or
- recycled through a closed-loop scheme (e.g. manufacturers take back scheme).

Remainder 70% (measured by items) of removed other loose furniture items to be diverted from landfill.

Note: a product can be considered to have been reused where it is salvaged and used for its original intended purpose, or where the majority of component parts of the product are remanufactured into new products without significant reprocessing.

Scoping

This measure applies if the removal of existing loose furniture items forms part of the fit-out contract, including if undertaken as a client direct activity. Items in scope are all others not already covered under measures D15, D16 and D17 and usually can include free standing AV units, lecterns, free-standing and non-serviced pods or call booths etc. The measure also applies if a product/material is retained through significant refurbishment and is clearly identified as part of the project scope of works.

Items and materials which contain POPs are excluded from the scope of this measure and from the performance calculations noted in the criteria. In the occasion that this extends to 100% of existing items then the measure is not in scope.

Assessment

At design stage:

1. Verify the listing of the furniture in the project's pre-refurbishment audit and RMPT and that the minimum required reuse quantity in the criteria is achieved.
2. Obtain reused installation photos from site or re-use storage facility evidence
3. Obtain a copy of the PCDS or equivalent product passport for each product or system in scope.

At handover stage, collate for all systems:

1. Verify that the project's RMPT and SWMP still verify the criteria is achieved.
2. Obtain delivery notes, site installation photos, or other confirmation of receipt for the reused furniture and that these correspond to the RMPT.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D18

Rank

53

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - other loose furniture (continued)

3. Verify that the systems PCDS or product passport is included in the client's asset register or similar asset circularity database.
4. Obtain verification that the PCDS or product passport has been issued to each destination of reuse or storage facility.
5. Where items are sent for recycling, a waste transfer note to be provided.

At occupancy stage: if furniture has been changed or damaged:

1. Ensure the products changed/removed have been returned to the manufacturer, reused on another site, or sent to a reuse facility, and a delivery note is provided as evidence, or
2. If products can't be reused, then are sent for recycling and a waste transfer note is provided.
3. The asset register is updated and a screenshot/copy of it indicating the update is provided as evidence.

Rationale

By enabling Circular Economy processes and implementing systems thinking that extends asset lifecycles across projects, we maximise asset circularity. This leads to significant gains in energy and resource efficiency and directly contributes to the conservation of natural resources by increasing item reuse, reducing recycling, and eliminating landfill. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

Reuse can be broken down into four key areas:

- Direct reuse – within the fit-out project or elsewhere within the organisation;
- Donation – to charities, schools, social enterprises, etc.; or
- Sale – to smaller companies and start up organisations, or
- Sale/storage in a reuse facility for immediate resale.

There are commercial organisations that specialise in the donation, refurbishment or other circular solutions for redundant furniture in the market.

Best practice for the management of furniture assets is achieved through commitment to keeping materials in their highest value form and maximising reuse over recycling, recovery or landfill. This involves having a full understanding of assets and prioritising the highest levels of the waste hierarchy and circularity. Replacing the procurement of virgin materials, ensuring that internal and external reuse is explored and maximised, and when recycling, prioritising the use of waste suppliers with recycling rates of >90% and a zero-to-landfill policy.

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Issue

Resource Management

ID

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Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - other loose furniture (continued)

Products and materials with persistent organic pollutants (POPs) must be managed according to UK Environmental regulations.

The UK Green Business Council recommends various avenues for donation, reuse and refurbishment on their resources page: Resources Archive | UKGBC (filter for 'Circular Economy')

ISO Circular Economy; insights and related standards

ISO 59004:2024, Circular Economy – Vocabulary, principles and guidance for implementation

ISO 59020:2024, Circular Economy – Measuring and assessing circularity performance

ISO 59040:2025, Circular Economy – Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

FIS Reuse Project

Freecycle.org

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. The number of reused and refurbished products will increase in each scheme update. The circularity related data provision for each product will also be more strongly driven to support re-use, repair and recycling at end-of-life cycles.

This measure is contributing to the following UN SDGs:

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Issue

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ID

D18

Rank

53

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Resource Management - wall coverings

Criteria

1. At least 40% (measured by area or number of items) of removed and offcut vinyl-based wall covering types is:
    - directly reused on this or another project; OR
    - returned to a manufacturer via a take back scheme for closed-loop recycling; OR
    - returned to a manufacturer via a take back scheme for open loop recycling

And,

2. At least 40% of removed timber or timber-containing wall covering, and/or any other hard wall covering that can be lifted intact/disassembled, is:
    - directly reused on this or another project; OR
    - returned to a manufacturer via a take back scheme for closed-loop recycling; OR
    - returned to a manufacturer via a take back scheme for open loop recycling

And,

3. At least 40% (measured by area or number of items) of removed and offcut wall coverings not covered in 1 and 2 points above, are:
    - directly reused on this or another project; OR
    - returned to a manufacturer via a take back scheme for closed loop recycling.

And,

4. Each re-used or take-back scheme product, is supplied with a Product Circularity Data Sheet (PCDS).

The remaining percentage and types of wall coverings should be diverted from landfill.

NOTE: Closed loop recycling is classed as the process of recycling a product or material back into a new product of the same material value (e.g. pre-used wall panel into a new wall panel).

Scoping

This measure applies for both existing and new wall coverings that form part of the fit-out contract, including if undertaken as a client direct activity.

The measure also applies if a product/material is retained through significant refurbishment and is clearly identified as part of the project scope of works.

Fit-out benchmark & assessment tool

Issue

Resource Management

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If you would like to comment on this measure please email **support@skarating.org**

Resource Management - wall coverings (continued)

Assessment

At design stage:

1. Verify the listing of all existing coverings in the project's pre-refurbishment audit and RMPT and that the minimum required reuse quantity in the criteria is achieved.
2. Obtain reused installation photos from site or re-use storage facility, or evidence of the return to the manufacturer's closed-loop scheme via a delivery note/correspondence/photos or certificate as may be applicable.
3. Obtain a copy of the PCDS or equivalent product passport for all products or systems in scope.

At handover stage, collate for all systems:

1. For reuse on this project:
   - verify that the project's RMPT and SWMP still verify the criteria is achieved.
   - verify that the finishes PCDS or product passport is included in the client's asset register or similar asset circularity database.
2. For reuse on another project:
   - obtain delivery notes, site installation photos, or other confirmation of receipt for the reused finishes, or closed-loop recycling schemes, and that these correspond to the RMPT.
   - obtain verification that the PCDS or product passport has been issued to each destination of reuse or storage facility.

At occupancy stage, if coverings have been changed or damaged:

1. Ensure the products changed/removed have been returned to the manufacturer, reused on another site, or sent to a reuse facility, and a delivery note is provided as evidence, or
2. If products can't be reused, then are sent for recycling and a waste transfer note is provided.
3. The asset register is updated and a screenshot/copy of it indicating the update is provided as evidence.

Rationale

By enabling Circular Economy processes and implementing systems thinking that extends asset lifecycles across projects, we maximise asset circularity. This leads to significant gains in energy and resource efficiency and directly contributes to the conservation of natural resources by increasing item reuse, reducing recycling, and eliminating landfill. This GPM aligns with the UK government's requirement for zero waste to landfill by 2050.

Fit-out benchmark & assessment tool

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Resource Management - wall coverings (continued)

Guidance

Reusing and recycling wall covering materials significantly contributes to Net Zero carbon goals. Reuse extends product lifespan, eliminating end-of-life emissions. Additionally, it avoids the embodied carbon associated with manufacturing new products.

Wall covering waste, including offcuts and used materials, is generated in nearly all fit-out projects and negatively impacts circularity and resource efficiency. To achieve 100% circularity, projects must prioritise reuse and closed-loop recycling, ensuring flooring materials are either repurposed or returned to the manufacturing process.

The three main sustainable options for dealing with wall covering waste are:

- Reuse, on or offsite;
- Closed loop recycling via a manufacturer's closed loop take back scheme;
- Open loop recycling, to be made into an alternative product.

A number of wall covering manufacturers are now investing in take-back programs. Projects are encouraged to prioritise product reuse whenever possible. When reuse is not feasible, focus on closed-loop recycling, transforming materials into new products. Dedicated businesses also specialise in reuse.

To successfully manage wall covering circularly, it's crucial to assess the type, quality, and quantity of existing materials early in the project. Careful deconstruction and appropriate storage are essential to maximise reusability.

The UK Green Business Council recommends various avenues for donation, reuse and refurbishment on their resources page: Resources Archive | UKGBC (filter for 'Circular Economy')

ISO Circular Economy; insights and related standards

ISO 59004:2024, Circular Economy – Vocabulary, principles and guidance for implementation

ISO 59020:2024, Circular Economy – Measuring and assessing circularity performance

ISO 59040:2025, Circular Economy – Product Circularity Data Sheet (PCDS)

What is a Product Circularity Data Sheet (PCDS)?

FIS Reuse Project

Freecycle.org

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Resource Management - wall coverings (continued)

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. The number of reused and refurbished products will increase in each scheme update. The circularity related data provision for each product will also be more strongly driven to support re-use, repair and recycling at end-of-life cycles.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

Issue

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If you would like to comment on this measure please email **support@skarating.org**

Resource Management - packaging

Criteria

1. Returnable, reusable packaging and protections to be used by at least 4 of the following product manufacturers/suppliers of the project:
    - plasterboard and other dry lining boards
    - timber sheets
    - glass sheets
    - paint
    - joinery
    - furniture
    - light fittings

And,

2. 100% of single use plastic contained packaging waste is to be recorded in the RMPT, the SWMP and be segregated on site for recycling.

Scoping

This measure applies to all projects.

Assessment

At design stage:

1. Confirm which material streams the team is aiming for returnable packaging and collect evidence from the suppliers or manufacturers of each on how they will be supplying and collecting the returnable packaging.
2. Verify the details are included in the procurement documents.
3. Verify the inclusion of the packaging waste streams in the Resource Management Plan and Tracker.

At handover stage:

1. Evidence the reusable packaging being used and of sending the packaging back to product manufacturer/distributer (or third-party logistics company) for reuse through site delivery/collection notes, photographs etc
2. Verify the plastic waste is planned to be segregated on site through the SWMP
3. Verify that the plastic waste was segregated on site through witnessing, waste collection receipts or the final waste report.

At occupancy stage: this measure is not assessed. The measure is achieved by default if it was achieved at handover stage.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D73

Rank

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Version

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If you would like to comment on this measure please email **support@skarating.org**

Resource Management - packaging (continued)

Rationale

By enabling Circular Economy processes and implementing systems thinking that extends asset lifecycles across projects, we maximise asset circularity. This leads to significant gains in energy and resource efficiency and directly contributes to the conservation of natural resources by increasing item reuse, reducing recycling, and eliminating landfill. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

In the UK, an average of 34% of construction waste (by volume) consists of packaging. The aim is to reduce packaging waste production, which is highly wasteful in terms of energy and resource use and increase circular packaging solutions. The aim is to enable inherited downstream and new (all) material and product circularity on any project boundary or use, through delivery and procurement processes. The generation of waste from packaging contributes to GHG Scope 3 emissions. The reuse of packaging and prevention of waste can help reduce these emissions, support organisational Net Zero strategies and higher material resource efficiency and circularity.

Elimination of packaging is not the aim as it prevents material damage during transport and storage and waste through such sources.

DEFRA, Extended producer responsibility for packaging

Zero Avoidable Packaging Waste in construction

EU Circular Economy Action Plan

WRAP, the UK Plastics Pact

Ellen Macarthur Foundation, Plastics

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Issue

Resource Management

ID

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Rank

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Version

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If you would like to comment on this measure please email **support@skarating.org**

Resource Management - packaging (continued)

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure. Reduction and avoidance of single use packaging that causes waste in resources, and pollution related to nature and human ill-health, will be targeted with more focus over the years. The number of products with reusable packaging will increase in each scheme update.

This measure is contributing to the following UN SDGs:

Fit-out benchmark & assessment tool

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Resource Management

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Resource Management Plan and Tracker (RMPT)

Criteria

1. The Resource Management Plan and Tracker (RMPT) is a measure of activities spanning from RIBA Stages 1 to 6 and aims to optimise the project's fixed asset material resources.
2. It also takes the format of a schedule for recording, planning, managing and tracking the design and construction management journey of materials and products identified within the existing and proposed project spaces.

   The schedule must include:

   a) all resources and quantities recorded in the project's D72 pre-refurbishment audit.

   b) all actions following the outputs of the D60 Design for Whole Life Resource Optimisation (DfO) workshops.

   c) clear destinations for all circularity resource items and materials, both on-site and off-site.

   d) clear destinations for all unavoidable waste items and materials (achieve measure D07 SWMP)

   e) estimated and actual quantities for all material streams and destinations. Reviewed at both the Design Stage and Handover Stage assessments.

   f) named parties responsible for each management action.

The process in Table 1 must be adopted to effectively manage the project's resources, while eliminating or reducing the generation of unavoidable waste in the process.

Table 1 – Fixed asset management process

D09 RMPT schedule

RIBA stages	1 & 2	2 & 4/5	5 & 6	5 & 6
SKA GPMs	D72 Pre-refurbishment Audit	D60 DfO	D07 SWMP	D84 Fixed asset tagging and register
	RMPT Design Stage review		RMPT Handover stage review	

The RMPT waste estimates and actuals are informed by initial estimates by the design team and from the SWMP during the delivery stage.

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Resource Management Plan and Tracker (RMPT) (continued)

3. Measures D72, D60 and D07 must be achieved to enable D09 to be achieved.
4. D84 may be optionally targeted for all projects with a build cost of £2 million or less, but must always be achieved for projects exceeding this amount.

Scoping

This measure applies to all fit-outs.

Assessment

Design Stage:

Stage 1-2: Verify that D72 measure is achieved.

Stage 1-2: Setup the project's RMPT schedule. Ensure all resource streams are included from the pre-refurbishment audit.

Stage 1-3: Verify that D60 measure is achieved in both the design and the delivery stages.

Stage 2-3: Update the RMPT schedule following the D60 resource optimisation workshops and include the plan to manage each resource (in the tracker). This includes existing space resources and predictive new materials from the construction works. Identify unavoidable and hazardous waste streams separately to circular resources.

Handover Stage:

1. Stage 4-5: During pre-construction the RMPT is handed over to the construction delivery team and a named manager, who will:
   a. update the RMPT schedule following the D60 resource optimisation workshops with the contractor and sub-contractors, and update the tracker with discussed outputs on planned actions to manage each resource.
   b. following the project's SWMP creation, update the RMPT with the refined stream splits, quantities and outcomes of avoidable and unavoidable waste streams.
   c. verify the on-going update of the RMPT at intervals agreed with the project and site teams, with a minimum of one update issued every 3-month period.
2. Stage 6: During project completion:
   a. obtain the final RMPT schedule with all the final record and quantities for re-used, closed-loop recycled, take-back scheme or other circularity managed resource item.

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Resource Management Plan and Tracker (RMPT) (continued)

b. verify the additions of asset tags and a corresponding register is created for client use during in-use asset management and maintenance.

Occupancy Stage: This measure is not assessed. The measure is achieved by default if it was met at handover stage.

Rationale

The aim is to promote material resource efficiency with high circularity practices, turning buildings and all interiors into material banks, enabling reuse and recovery at any time in the life cycle. An RMPT is considered good practice and supports organisations have a good understanding of the circularity they are enabling, waste they are generating, a plan to manage all the materials, and lastly to encourage a culture of resource optimisation in all markets. This GPM is in line with the UK government's requirement for zero waste to landfill by 2050.

Guidance

Research from the Centre for Industrial Energy, Materials and Products (CIEMAP) proposed that improving material use could reduce emissions by nearly 200 $MtCO_2e$ by 2032. Resource efficiency in the construction sector offers the greatest opportunity to cut carbon emissions, with potential to reduce them by 79.14 $MtCO_2e$ between 2023 and 2032.

DESIGN PRINCIPLES	Acronyms
Design for Reuse and Recovery	DfRR
Design for Off Site Construction	DfOSC
Design for Materials Optimisation	DfMO / DfO
Design for Waste Efficient Procurement	DfWEP
Design for Deconstruction and Flexibility	DfDF

UK, Greater London Authority, Circular Economy Statements

WRAP, the UK Plastics Pact

EU Circular Economy Action Plan

Ellen Macarthur Foundation, Plastics.

Zero Avoidable Waste Route Map 2022

UK WEEE Regulations guidance.

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Resource Management Plan and Tracker (RMPT) (continued)

WEEE: reuse and treatment guidance.

Products and materials with persistent organic pollutants (POPs) must be managed according to UK Environmental regulations.

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure.

This measure is contributing to the following UN SDGs:

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SKArating for Offices 2.0

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Fixed Asset Tagging and Register

Criteria

1. An identity tag is added onto all fixed assets of the project. This is to be applied on each product and item that is installed or adapted in the project's scope.

And,

2. An asset register is setup, or updated where one already exists, to record/link all asset identity tags and is available by the occupant's team(s) that work on day-to-day operations and facility management. Product / material information should be stored in an accessible digital location for use by space/building managers. This could be an online asset register, a Computer-aided Facilities Management (CAFM) system, BIM or other form of database.

And,

3. The asset tag should allow users to source the following information on the product / material:
    - material type
    - manufacturer
    - warranty details
    - installation date
    - installation location
    - product or system Environmental product declaration or Product Circularity Data Sheet
    - material / product data sheet
    - deconstruction guide
    - end-of-life reuse and / or disposal requirements

The criteria apply to all products, systems and materials that have been targeted in an assessment and product circularity and LCA information has been generated. It is optional good practice for projects to request for the rest of the data from suppliers.

Scoping

This measure applies to all fit-outs.

Assessment

At design stage:

1. Obtain details of the asset tags being selected and confirm their application on each asset item is included in the project's scope of works, and

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Fixed Asset Tagging and Register (continued)

2. Obtain details of the asset register system being proposed by the occupant or confirmation that one exists and will be updated at handover stage.

At handover stage:

1. Confirm asset tags are installed on products and systems as noted in the criteria through a visual check around the site.
2. Validate the setup, or update, of a fixed asset register and its management access by the operational and facilities team(s).

At occupancy stage, if changes to the space have occurred during occupancy:

1. Validate that such products or systems that have changed/ removed and been returned to the manufacturer, reused on another site/ sent to a reuse facility, had their LCA and circularity data sent with them, or/and
2. Where new products, materials and systems have been added they comply with the criteria,
3. and in both cases above the asset register is updated to reflect the changes and collate the relevant asset data.

Rationale

The aim of having a fixed asset register is to promote circularity in the built environment. The asset register aims to support the tracking of assets and the management of important information about products, materials and systems which relate to their performance, effective maintenance to maximise their lifespan and safe re-use into another space. Enabling data means the ease and accuracy of material re-use can also occur more frequently and with higher value return.

This measure forms part of the Resource Management system, a group of good practice measures that deliver this. The Resource management system forms a pathway towards full product and material passports and seeing spaces as material banks.

Guidance

It is recommended that the RMP tracker is considered as the starting point for the fixed asset register.

Asset tags and registers can be in the form of labels, spreadsheets and digital files, or electronic tags, QR codes and digital software platforms.

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Fixed Asset Tagging and Register (continued)

A fixed asset register can contain any data a user requires, it is recommended that this includes some of the following:

- Description of the asset
- Date of purchase and expected life of the asset
- Purchase cost, depreciation method used if any, and current value of asset.
- Location of the asset
- Owner and/or user of the asset
- Barcode, label, QR code or the serial number of the asset
- Insurance coverage if specific
- Manufacturer's warranty information
- Leasing or take-back scheme details if it forms part of such an agreement
- Operational and Maintenance information
- Health and safety information for both maintenance and occupant impacts
- Environmental Life cycle analysis information such as an EPD, and circularity data such as the PCDS.
- End of life destination details if not covered by the above points, including disassembly guides.

Asset Tag & Equipment Label Guidance (document reference CRL1-XRL-Z3-GUI-CR001-50040). CrossRail Ltd.

EU Digital Product Passport

Read further on UKGBC's Material Passports resource area.

EU Buildings As Materials Banks (BAMB)

Pathway to 2030+

Increasing the circular management of resources will remain the objective of this measure.

This measure is contributing to the following UN SDGs:

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Site Waste Management Plan (SWMP)

Criteria

1. The project must target 95% diversion from landfill of unavoidable generated waste, from both demolition and construction sources, but excluding hazardous waste.

And,

2. A Site Waste Management Plan (SWMP) is prepared before site works start, coordinated with the unavoidable waste streams noted in the Resource Management Plan and Tracker (RMPT), and must contain information related to:

Table 1

A.	Strategy to AVOID construction of hazardous and non-hazardous waste generation.
B.	Site set up for UNAVOIDABLE construction waste segregation with clear waste streams labelling indication.
C.	Procedures for reusing, recycling and recovering construction waste into defined waste groups, onsite or offsite, including storage requirements.
D.	Procedures to avoid waste material contamination issues.
E.	Labour induction requirements and procedures.
F.	Procedures for reviewing and updating the plan.
G.	The identified individual responsible for executing and implementing the plan.
H.	At PC, if waste data is obtained from licensed external waste contractors, the data needs to be reliable and verifiable, by using a certified PAS 402 waste contractor or data from EA / SEPA / EA / Wales / NIEA Waste Return Forms.

And,

3. The format of the SWMP includes and allows for individual waste streams as recorded in the RMPT for:
    a. quantities of projected waste prior to site works start, and
    b. quantities of actual waste at project completion.

Incineration with energy production is accepted only as a last resource and only if done within authorised R1 recovery plants.

If quantities are tracked and managed through the RMPT then duplication can be avoided and a single use of material and management tracking can be followed with the RMPT being passed on.

Fit-out benchmark & assessment tool

Issue

Resource Management

ID

D07

Rank

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Version

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If you would like to comment on this measure please email **support@skarating.org**

Site Waste Management Plan (SWMP) (continued)

Scoping

This measure applies to all fit-outs.

Assessment

Design Stage: obtain evidence that all the criteria of this measure are included in the project requirements sent to the potential delivery contractors prior to their selection, and that they are requested to comply.

Handover Stage:

1. During pre-construction: obtain the project's SWMP from the project's contractor and evidence that it includes:

   The commitment to divert 95% of unavoidable project waste from landfill.

   a. inclusion of all information outlined in table 1, and

   b. quantities of projected unavoidable waste.

   c. confirm that the licenced waste contractor is PAS 402 certified, or data is similarly provided as required by the criteria.

2. At project completion: Obtain the final SWMP and waste contractors report, both with quantities of the actual waste generated and confirm that 95% has been diverted from landfill.

Occupancy Stage: This measure is not assessed. The measure is achieved by default if it was achieved at handover stage.

Rationale

Producing a Site Waste Management Plan (SWMP) on construction projects helps organisations gain a clear understanding of the waste they generate, regardless of project value or size. The process of estimating and tracking waste provides a framework to eliminate, target, manage and monitor site waste. The planning aspect introduces reduction procedures that help to manage the material. This GPM is in line with the UK government requirement for zero waste to landfill by 2050.

Guidance

The D09 RMPT will be noting estimated waste streams from unavoidable waste as a separate outcome to that of the materials resource which is being re-used on or off site. It is recommended that the SWMP schedules follows on and develops further the schedule's structure and supports the reporting of all other individual Resource Management measures.

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Site Waste Management Plan (SWMP) (continued)

Each material must be valued as a resource, preventing and minimising their move to the waste classification. This approach offers long term cost savings and environmental impact minimisation. The true cost of waste is 8 to 10 times the disposal cost and includes:

1. Purchase price of materials that are being wasted
2. Cost of storage, transport and disposal of excess materials/waste
3. Cost of the time spent managing and handling the waste
4. Loss of income from not reusing waste materials.

The waste management hierarchy is a conceptual framework designed to guide and rank waste management decisions. It gives top priority to waste prevention, followed by re-use, recycling, recovery and finally disposal. The hierarchy helps us rethink our relationship with waste based on five priorities ranked in terms of what's best for the environment. The hierarchy principles are enacted through several mechanisms in the UK construction industry, from European Directives through to national legislation. The waste legislation has two principle aims:

5. To ensure the disposal of waste is regulated (and traceable).
6. To ensure that the cost of waste disposal is borne by the waste producer, in-line with the polluter pays principle (PPP).

The SWMP GPM aims to align with the current UK Government's targets of:

7. Eliminate avoidable waste of all kinds by 2050' in England (overarching measure)
8. Reduced emissions from landfill and incineration, saving an estimated 35 $MtCO_2e$ by 2050.
9. Eliminate avoidable plastic waste by 2042
10. Reduce carbon emissions by 78% by 2035

BSI PAS 402:2025 Waste resource management. Performance reporting specification.

PAS 402 is an externally verified standard and certification that waste contractors can achieve. It provides a reporting methodology for waste contractors to follow, allowing clear and accurate demonstration against key areas of delivery including landfill diversion and material recovery. By using a PAS 402 certified waste contractor, the client, main contractor and SKArating assessor can be confident in the waste arising figures and recycling figures being reported through their use of the prescribed methodology.

Demolition and Construction Waste can be viewed as a valuable resource. The strip-out of the existing materials is classified as 'demolition' waste. Where a strip-out forms part of the project, the

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Site Waste Management Plan (SWMP) (continued)

SWMP should include a section outlining the plan for demolition waste as well as construction waste in line with this GPM.

Accurately quantifying C&D waste is challenging and whilst the absolute tonnage figures are subject to a relatively high level of uncertainty, sensitivity analysis suggest that there is not a significant impact on the final recovery rate.

DESIGN PRINCIPLES	Acronyms
Design for Reuse and Recovery	DfRR
Design for Off Site Construction	DfOSC
Design for Materials Optimisation	DfMO / DfO
Design for Waste Efficient Procurement	DfWEP
Design for Deconstruction and Flexibility	DfDF

Zero Avoidable Waste Route Map 2022.

UK WEEE Regulations guidance.

WEEE: reuse and treatment guidance.

Pathway to 2030+

Increasing the circular management of resources and reducing the unavoidable waste quantities will remain the objective of this measure.

This measure is contributing to the following UN SDGs:

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ID

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Version

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If you would like to comment on this measure please email **support@skarating.org**

Cycle Parking

Criteria

Secure, lockable cycle racks are provided, and:

- Where occupancy is unknown, one space is provided for every 100m² of net internal area; or
- where occupancy is known, one space is provided per every 10 people.

Note: When carrying out the calculation the number must be rounded up, i.e. if there is 420m² of floor space and occupancy is unknown then five cycle spaces must be provided.

Scoping

This measure applies if there is tenant core or external space (including existing parking spaces) with suitable access.

Assessment

At design stage: check specifications and drawings meet the criteria. Check building occupancy levels to confirm the number of spaces provided is compliant.

At handover stage: review as-built drawings and carry out a site visit to ensure it meets the criteria.

At occupancy stage: if cycle racks have been changed or reduced, carry out the handover stage assessment. If this measure was achieved at handover stage and the cycle racks have not been changed or reduced in number, this measure will be considered achieved by default.

Rationale

The aim is to encourage staff to cycle to work

Guidance

Ideally cycle spaces should be covered, well-lit and secure. Design guidelines can be found in Cycle Parking (Sustrans Information Sheet FF37).

Sustrans also produce an information sheet titled Active Travel in the Workplace: Planning for an Active Workforce, which provides additional information.

Several local councils are producing guidelines too, which recommend one space per 125–350m² of floor space. See Transport for London's Workplace Cycle Parking Guide.

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Issue

Transport

ID

D41

Rank

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If you would like to comment on this measure please email **support@skarating.org**

Cycle Parking (continued)

Pathway to 2030+

This measure aligns with the UK Government's Decarbonising Transport strategy, which in turn aligns with the commitments made in the UK Net Zero Carbon Strategy and Climate Change Act. It supports the decarbonisation of transport, which is one of the most significant contributors to global greenhouse gas emissions. It will be reviewed at each scheme update to establish whether this measure has become standard practice.

This measure supports the following UN SDGs, either directly or indirectly:

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Transport

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Rank

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Version

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If you would like to comment on this measure please email **support@skarating.org**

Cyclist Lockers

Criteria

One locker must be provided for every 8 staff members proposed to occupy the space within the scope of the project. Lockers must feature a 'coded'/keyless locking mechanism. Only reused lockers that have a lock and key can be accepted as compliant.

Scoping

This measure applies to all fit-outs with sufficient core space for lockers, unless it can be demonstrated that a sufficient number of cycle lockers already exist within suitable proximity.

For a locker to be considered within suitable proximity, it must be located within the same building. Lockers should be appropriately sized for the storage of cycling equipment e.g. helmet, shoes, clothing panniers/backpack and cycling equipment.

Assessment

At design stage: Review design drawings, specifications and schedules to verify lockers are provided. Check building occupancy levels to confirm the number of lockers is compliant.

At handover stage: Review as-built drawings and carry out a site visit to ensure the criteria is met.

At occupancy stage: If the number of lockers has been changed or reduced, conduct the design and handover stage assessments If this measure was achieved at handover stage and the lockers have not been changed or reduced in number, it will be considered achieved by default.

Rationale

The aim is to encourage staff to cycle to work/campus by providing lockers where they can store clothes and cycle equipment.

Guidance

Better Buildings Partnership Transport Guidance
Transport | Better Buildings Partnership

Pathway to 2030+

This measure aligns with the UK Government's Decarbonising Transport strategy, which in turn, aligns with the commitments made in the UK Net Zero Carbon Strategy and Climate Change Act. It will support the decarbonisation of transport, which is one of the

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Transport

ID

D43

Rank

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Version

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Cyclist Lockers (continued)

most significant contributors to global greenhouse gas emissions. This measure will be reviewed at each scheme update to determine whether the provision of lockers has become standard practice.

This measure supports the following UN SDGs, either directly or indirectly:

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If you would like to comment on this measure please email **support@skarating.org**

Shower facilities

Criteria

One shower is provided per 100 non-transient occupants (or part thereof). Showers must be freely available to occupants. Shower numbers are to be rounded up to the nearest whole number (e.g. 40 occupants = 1 shower, 125 occupants = 2 showers)

Scoping

This measure applies to all projects with sufficient washroom space, unless it can be demonstrated that adequate washroom facilities are already available within suitable proximity.

This measure is always in scope if any of the following spaces or uses are within the project boundary:

- restaurants, with commercial kitchens;
- sports facilities; and
- other facilities where staff are involved in hot, malodorous, grimy or manual activities.

For washroom facilities to be considered within suitable proximity, they must be located within the same building. Facilities should be available for all genders and comply with latest guidance on the provision of single sex spaces.

Assessment

At design stage: review design drawings and specifications to verify showers are provided. Check building occupancy levels to confirm that the number of spaces provided is compliant.

At handover stage: Conduct a site inspection to verify that the criteria has been met. Review as-built drawings and conduct a site visit to ensure it meets the criteria.

At occupancy stage: if showers have been changed or reduced, repeat the design and handover stage assessments. If this measure was achieved at handover stage and the showers have not been changed or reduced in number, it will be considered achieved by default.

Rationale

The aim is to encourage staff and students to cycle to work/campus by providing showers so that they can freshen up after their ride or malodorous manual activities.

Fit-out benchmark & assessment tool

Issue

Transport

ID

D42

Rank

64

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Shower facilities (continued)

Guidance

Better Buildings Partnership Transport Guidance
Transport | Better Buildings Partnership

Pathway to 2030+

This measure aligns with the UK Government's Decarbonising Transport strategy, which is in turn, aligns with the commitments made in the UK Net Zero Carbon Strategy and Climate Change Act. It will support the decarbonisation of transport, which is one of the most significant contributors to global greenhouse gas emissions. This measure will be reviewed at each scheme update to determine whether provision of showers has become standard practice.

This measure supports the following UN SDGs, either directly or indirectly:

Fit-out benchmark & assessment tool

Issue

Transport

ID

D42

Rank

64

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Construction phase transport CO_2 emissions

Criteria

1. A site-specific construction travel plan and tracker is produced that identifies ways to reduce vehicle movements and must consider the criteria as applicable below:
    a. Distance and emission estimates and targets, plus delivery stage monitoring requirements are determined at the start of the project and reviewed throughout construction.
    b. Procurement of goods and services including feasibility of sourcing items locally (e.g. within 1 hours travel time) or from the same supplier / merchant and procuring off-site manufactured items for larger components.
    c. Commitment by operators to follow best practice measures e.g. signed up to the FORS scheme, use fuel efficient vehicles, or low carbon modes of delivery (e.g. electric, rail and train).
    d. Operational efficiency demonstrating pro-active management of deliveries to reduce the number of vehicle deliveries.
    e. Waste management options for segregating, storing and removing waste including feasibility of using a Construction Consolidation Centre.
    f. Design of appropriate service facilities and off-street loading where practical.
2. The principal contractor must monitor site transport, including deliveries of materials and plant to site, and movement of waste from site. The following should be recorded, kept on site and made available to the SKA assessor:
    - vehicle distance to and from site;
    - types of vehicles used; and
    - the calculated CO_2 emissions.

Scoping

This measure applies to all fit-outs.

Assessment

Design stage:

1. Obtain the design stage project travel plan and tracker which estimates the project transport related emissions based on the proposed design and procurement approach.

Fit-out benchmark & assessment tool

Issue

Transport

ID

D59

Rank

65

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Construction phase transport CO_2 emissions (continued)

2. Review the site-specific construction travel plan and confirm it covers all relevant measures prior to commencement on site, or details that confirm this is included in the procurement requirements to be undertaken by the main delivery team.

Handover stage:

1. Review the site-specific construction travel plan and confirm it covers all relevant measures prior to commencement on site and includes updated predictive procurement locations.
2. At interim stages confirm that the recommendations to reduce vehicle movements on site are being carried out through photographic evidence, and
3. At handover verify all vehicle movements have been monitored with spreadsheet/data outputs issued and a final as-built transport record with the total CO_2 emissions calculation is provided.
4. Include the recorded transport CO_2 emissions in the evidence description on the online tool.

Occupancy stage: achieved by default if achieved at handover stage.

Rationale

Reducing transport associated with deliveries of materials and site activities, collections and labour will support the reduction of greenhouse gas emissions and Net Zero Carbon aims. Transport related impacts can only be addressed if they are accounted as part of the design decisions and form part of procurement considerations and supply chain selections and discussions.

Guidance

Department for Energy Security and Net Zero (DESNZ) Greenhouse gas reporting: conversion factors 2024

Low Carbon Routemap for the UK Built Environment

FORS – Fleet Operator Recognition Scheme – FORS is a method of recognising fleet operations which comply with the requirements of the FORS standard. The FORS standard is based upon lawfulness, safety, efficiency, and environmental protection.

Fit-out benchmark & assessment tool

Issue

Transport

ID

D59

Rank

65

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Construction phase transport CO_2 emissions (continued)

Pathway to 2030+

This measure is likely to remain in the scheme until the transition to zero emission vehicles is complete.

This measure supports the following UN SDGs, either directly or indirectly:

Fit-out benchmark & assessment tool

Issue

Transport

ID

D59

Rank

65

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Efficient taps

Criteria

Flow rate on taps (excluding cleaner's sinks) is limited to 4 litres per minute up to a pressure of 5 bar (± 0.2bar), and the tap or flow controller must have an Unified Water Label. Where auto shut-off or electronic taps are specified, the flow should be restricted to no more than 20 seconds.

Scoping

This measure applies if taps are being installed or replaced.

Assessment

At design stage: review equipment specifications, verify the manufacturer's name and model number and check the model is listed on the Unified Water Label list. Where performance specifications are being included only, ensure that the written specifications or contracts specify that this equipment must be sourced from the Unified Water Label list.

At handover stage: review delivery notes or invoices and verify the equipment manufacturer's name and model number and that this aligns with the compliant products checked during the design stage assessment. If products are being selected during the delivery stage, undertake the design stage assessment in addition to verifying them as being installed.

At occupancy stage: if taps have been changed or added then proceed to the handover stage assessment. If this measure was achieved at handover stage and taps have not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce water usage within the office.

Guidance

The Unified Water Label holds data on taps that have an EU Water Efficiency Label. Products that meet the criteria will help projects comply with Building Regulations Part G and corporate reporting requirements such as the EU Taxonomy and CRREM.

Fit-out benchmark & assessment tool

Issue

Water

ID

E14

Rank

15

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Efficient taps (continued)

Pathway to 2030+

This measure is aligned with the UK Water Efficiency Strategy (Water Efficiency Strategy – Waterwise), which in turn aligns with the UK Net Zero Carbon Strategy. Water efficiency is a critical component of achieving net zero carbon emission through the reduction in operational and embodied energy required to treat, distribute and process water. This measure will remain in the scheme until use of taps that meet EU water label limits is standard practice.

This measure supports the following UN SDGs, either directly or indirectly:

Fit-out benchmark & assessment tool

Issue

Water

ID

E14

Rank

15

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Water measurement and reporting

Criteria

1. A pulse water meter is installed on the water supply to the tenant's demise,

And,

2. where major water- consuming areas of the space (e.g. commercial kitchen, gym changing areas, etc) sub-meters are also installed for each such space.

And,

3. The meters must be capable of transmitting water usage data to a central data logger or Building Management System for water management purposes. The water meters must be certified by an independent certification body as compliant with The Water Supply (Water Fittings) Regulations 1999, The Water Supply (Water Fittings) Regulations (Northern Ireland) 2009 and The Water Supply (Water Fittings) (Scotland) Byelaws 2014.

And,

4. Water monitoring and reporting software should be provided to display consumption data provided by the water meters to the occupant. The software should automatically record hourly and daily water consumption and allow trends in consumption over time to be reviewed.

Scoping

This measure applies if any part of the water supply system is being installed or modified or if a water meter is being connected to the existing system. It is in scope even if one tap is being replaced or installed.

Assessment

At design stage: Check that the written specifications state this equipment meets the criteria.

1. Review the water meter data sheets to confirm the model meets the criteria,
2. has Water Supply Regulations certification, and
3. that the meter is capable of transmitting information on water use to a central data logger for water management purposes.
4. Check the water monitoring system specification to ensure it complies with the requirements.

Fit-out benchmark & assessment tool

Issue

Water

ID

E17

Rank

69

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Water measurement and reporting (continued)

At handover stage:

1. review delivery notes or invoices and obtain the equipment manufacturer's name and model number is the one approved at the design stage.
2. Verify that the water monitoring system is receiving data and is storing and recording information.

At occupancy stage: if the water meter has been changed or added then proceed to the handover stage assessment. If this measure was achieved at handover stage and the water meter has not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce water usage within the operation of office environments.

Guidance

Measuring water usage can help reduce water consumption by encouraging behaviour change and identifying hidden leaks in water systems (e.g. overflow from WC cisterns). Recording trends in water consumption allows for the development of plans to reduce water demand and associated costs and carbon emissions.

This measure can be achieved through several methods, including connecting to the existing building BMS where this is accessed by tenants, installing a new BMS for the project space, or using standalone water management software connected to the meters in the space.

Pathway to 2030+

This measure aligns with the UK Water Efficiency Strategy (Water Efficiency Strategy – Waterwise), which in turn aligns with the UK Net Zero Carbon Strategy. Water efficiency is a critical component of achieving net zero carbon emission by reducing the operational and embodied energy required to treat, distribute, and process water. This measure will remain in the scheme until water consumption monitoring is standard practice or a legal requirement.

Fit-out benchmark & assessment tool

Issue

Water

ID

E17

Rank

69

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Water measurement and reporting (continued)

This measure supports the following UN SDGs, either directly or indirectly:

Fit-out benchmark & assessment tool

Issue

Water

ID

E17

Rank

69

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Sanitary supply shut-off

Criteria

A control system to isolate the water supply when the washrooms are unoccupied is specified and installed. This usually comprises a solenoid valve and occupancy sensor. The shut-off system only needs to be applied to the cold-water supply to taps, WCs and urinals.

Scoping

This measure applies if the water supply system is being installed or modified or if a sanitary supply shut-off system is connected to the existing system.

Assessment

At design stage: review the design drawings and written specifications/contracts to confirm that this equipment is required for installation. If the model and manufacturer have already been specified, proceed with the handover stage assessment.

At handover stage: review as-built drawings, invoices or delivery notes to obtain equipment manufacturer's name and model number, or/and verify the installation through the as-built drawings.

At occupancy stage: if the sanitary supply shut-off system has been changed or added then proceed to the handover stage assessment. If this measure was achieved at handover stage and the system has not been changed or added, this measure will be achieved by default.

Rationale

The aim is to reduce water loss caused by minor leaks in toilet areas. While these leaks may not always be immediately detected, they can lead to significant water loss.

Control devices can be used to shut off flow at predetermined times or under specific conditions for example when water devices are not in use. They may be timed, condition-sensitive, programmed, or manually controlled at a central unit.

Guidance

Installing automated shut-off valves to toilet areas, linked to the lighting control system or equipped with their own presence detectors is a cost effective and simple way of preventing hidden water leaks. Any product used on in the water systems should be compliant with The Water Supply (Water Fittings) Regulations 1999, The Water Supply (Water Fittings) Regulations (Northern Ireland) 2009 and The Water Supply (Water Fittings) (Scotland) Byelaws 2014.

Fit-out benchmark & assessment tool

Issue

Water

ID

E19

Rank

56

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Sanitary supply shut-off (continued)

Pathway to 2030+

This measure aligns with the UK Water Efficiency Strategy (Water Efficiency Strategy – Waterwise), which in turn aligns with the UK Net Zero Carbon Strategy. Water efficiency is a critical component of achieving net zero carbon emission through the reduction in operational and embodied energy required to treat, distribute and process water. This measure will remain in scope until automated water shut-off is standard practice.

This measure supports the following UN SDGs, either directly or indirectly:

Fit-out benchmark & assessment tool

Issue

Water

ID

E19

Rank

56

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Water leak detection

Criteria

A system capable of detecting water leaks is installed. This could be a stand-alone system or via the Building Management System (BMS). The system should monitor water consumption and report consumption outside of appropriate limits and raise an alarm. The alarm threshold should be adjustable based on actual consumption monitoring.

Scoping

This measure applies if the water supply system is being installed or modified or if a detection system is being connected to the existing system.

Assessment

At design stage: check design drawings and written specifications/ contracts state that this equipment must be installed. If the model and manufacturer have already been specified, then proceed to the handover stage assessment. If the BMS is being used, the BMS specification must be reviewed to ensure that it can monitor consumption and will raise an alarm when consumption exceeds predefined thresholds.

At handover stage: review the as-built drawings invoices or delivery notes and obtain the equipment manufacturer's name and model number. If the BMS is to be utilised, review the as-built Description of Controls for the BMS or observe the BMS performing the required functions.

At occupancy stage: if the detection system has been changed or added then proceed to the handover stage assessment. If this measure was achieved at handover stage and the detection system has not been changed or added, this measure will be considered achieved by default.

Rationale

The aim is to reduce water usage within the office by providing feedback to management on potential leaks in the water system. This in turn, will help minimise long-term leaks and structural damage. The measure is in scope if water supply systems are being modified, as this presents an opportunity to install a leakage detection system.

Fit-out benchmark & assessment tool

Issue

Water

ID

E20

Rank

57

Version

SKArating for Offices 2.0

If you would like to comment on this measure please email **support@skarating.org**

Water leak detection (continued)

Guidance

A leakage detection system is required to cover all mains within the fit-out area. Any product used in the water systems must comply with The Water Supply (Water Fittings) Regulations 1999, The Water Supply (Water Fittings) Regulations (Northern Ireland) 2009 and The Water Supply (Water Fittings) (Scotland) Byelaws 2014.

Pathway to 2030+

This measure aligns with the UK Water Efficiency Strategy (Water Efficiency Strategy – Waterwise), which in turn aligns with the UK Net Zero Carbon Strategy. Water efficiency is a critical component of achieving net zero carbon emission through the reduction in operational and embodied energy required to treat, distribute and process water. This measure will remain in the scheme until water leak detection is standard practice or a legal requirement.

This measure supports the following UN SDGs, either directly or indirectly:

Fit-out benchmark & assessment tool

Issue

Water

ID

E20

Rank

57

Version

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