

Sheppard Robson

The Castings

CAS-AXIS-BU1-XX-SP-A-10-0041

Z40 - General Sustainability Requirements

A4 - Final Construction Issue

C02

22-01-2024

Contents

Z40 General sustainability requirements 1

Z40

General sustainability requirements

To be read with preliminaries/ general conditions

105 General sustainability requirements

1. The requirements of this section are supplementary to those stated elsewhere in the tender documents.
2. Refer to Clause Z40:200 Series for Environmental Assessment; method, rating and report provider.
3. Compliance with the standards quoted must be to the current edition in each case.
4. Where a conflict arises between quoted Standards, Regulations or Performance, the more onerous shall apply.
5. Before altering this specification:
 - 5.1. Check that any proposed changes will not jeopardise the project environmental assessment rating target.
 - 5.2. Submit details of the change request in accordance with the project preliminaries.

110 General certification requirements

1. All material suppliers must have EMS (ISO14001) certification for process (bricks, metals, glass, plastics, pre-cast concrete etc.), extraction (stone, aggregates, sand etc) and supply chain, and be supplied with an environmental product declaration, written in accordance with ISO 14025 standards.
2. All material suppliers must provide Chain of Custody, BES6001 or EMS independent certification as appropriate to the product and in line with environmental rating system requirements.

115 General material requirements Adhesives

1. **Flooring:** Compliant with BS EN 13999-1. Verify that carcinogenic or sensitising volatile substances are absent. Testing requirements as outlined in BS EN 13999-2 –Volatile Organic Compounds (VOCs), BS EN 13999-3 –Volatile aldehydes and BS EN 13999-4 –Volatile diisocyanates.
2. **Wall coverings :** Adhesive for hanging flexible wall coverings compliant with BS 3046. No harmful substances. Preservatives used should be of minimum toxicity.

120 General material requirements Decorative paints and varnishes

1. Compliant with BS EN 13300 referred to the criteria of Decorative Paint Directive 2004/42/CE. VOC (organic solvent) content (testing to BS EN ISO 11890-2) requirement for Phase 2. Fungal and algal resistant in wet areas.
2. Polishes and/or varnishes are to be water based.
3. All paint systems are to fall within the VOC content limit of the EU Directive 2004/42/CE ('Paints Directive').
4. Refer to Clause 145 General material requirements VOCs (Volatile Organic Compounds) below.

125 General material requirements Insulation

1. All insulation, particularly wall, roof, floor, pipework and ductwork insulation, must be CFC, HFC and HCFC free, both in content and manufacture. All insulants should have an ODP of zero and GWP of less than 5. Where possible insulants are to have an A or A+ rating in BRE's The Green Guide to Specification. Where a different Green Guide rating is specified in the Work Sections the more onerous rating shall apply.

2. Insulation manufacturers to provide Chain of Custody, BES6001 or EMS independent certification as required to comply with environmental rating system requirements.

130 General material requirements Resilient, textile and laminated floor coverings

1. All resilient, textile and laminated floor coverings, including; vinyl, linoleum, cork, rubber, carpet and laminated wood flooring must be compliant with BS EN 14041. Formaldehyde E1 testing as required under BS EN 717-1. Verify that regulated wood preservatives are absent and of minimum content.

135 General material requirements Suspended Ceiling Tiles

1. Compliant with BS EN 13964. Formaldehyde E1 as required under BS EN 717-1. No asbestos content.

140 General material requirements Timber

1. **Wood panels:** Including particleboard, fibreboard, MDF, OSB, Cement-bonded particleboard, plywood, solid wood panel and acoustic board to comply with BS EN 13986. Formaldehyde E1 testing as required under BS EN 717-1. Verify the absence of prohibited wood preservatives/biocides.
2. **Wood flooring:** BS EN 14342 compliant. Formaldehyde E1 testing as required under BS EN 717-1. Verify that regulated wood preservatives are absent or of minimum content.
3. **Timber structures:** Timber Structures, such as glue laminated timber to comply with BS EN 14080. Formaldehyde E1 testing as required under BS EN 717-1.
4. **Preservative treatment:**
 - 4.1. Timber to be preservative treated, will be treated using environmentally friendly processes and will be selected in accordance with relevant current British Standards.
 - 4.2. All timber will be preservative treated off site by a suitably qualified company. Preservative treatment on site will be confined to cut ends only.
5. **Source:**
 - 5.1. All timber will come from a 'legal source' and will not be on the CITES list of endangered species.
 - 5.2. All timber and timber-based products used on the project shall be 'Legally harvested and traded timber' as defined in the Central Point of Expertise on Timber (CPET) 5th Edition report on the UK Government Timber Procurement Policy.
6. **Certification:**
 - 6.1. All internal and external timber will be sustainably sourced, with 'FSC' Certified or other similar approved certification.
 - 6.2. FSC 'Controlled' or other similar certification will not be used.
7. **Documentation:**
 - 7.1. Documentary evidence (that has been independently verified) regarding the provenance of all timber supplied.

145 General material requirements VOCs (Volatile Organic Compounds)

1. **Post construction VOC Levels:**
 - 1.1. The formaldehyde concentration level shall be measured post construction (but pre-occupancy) and shall be less than or equal to 100µg/m³ averaged over 30 minutes.
 - 1.2. The Total Volatile Organic Compound (TVOC) concentration shall be measured post construction (but pre-occupancy) and found to be less than 300µg/m³ over 8 hours, in line with the Building Regulation requirements.

- 1.3. Where VOC and formaldehyde levels exceed these limits, confirm the measures that have, or will be taken, in accordance with the IAQ plan, to reduce the levels to within these limits, including re-measurement.
2. The testing and measurement of the above pollutants are in accordance with the following standards where relevant:
 - 2.1. BS ISO 16000-4: Diffusive sampling of formaldehyde in air.
 - 2.2. BS ISO 16000-6: VOCs in air by active sampling.
 - 2.3. BS EN ISO 16017-2: VOCs - Indoor, ambient and workplace air by diffusive sampling.
 - 2.4. BS ISO 16000-3: Formaldehyde and other carbonyls in air by active sampling.
3. **Reporting:** The measured concentration levels of formaldehyde ($\mu\text{g}/\text{m}^3$) and TVOC ($\mu\text{g}/\text{m}^3$) shall be reported.

150 General material requirements Wall coverings

1. Wall coverings including finished wallpapers, wall vinyls and plastic wall coverings, wallpapers for subsequent decoration, heavy duty wall-coverings and textile wall-coverings must be compliant with BS EN 233, BS EN 234, BS EN 259 & BS EN 266.
2. Formaldehyde and vinyl chloride monomer (VCM) testing to BS EN 12149 release should be low and within BS EN standard for the material.
3. Verify that the migration of heavy metals as indicated in BS EN 12149 and any other toxic substances are within the BS EN standard for the material.

200 Environmental assessment method

1. In the event of a disparity between the 100 Series Clauses above and/or between the Environmental assessment methods below, the more onerous requirement shall apply.
2. **Scheme:**
 - 2.1. **Technical standard:**
 - 2.2. **Rating:**
3. **Report:**
4. **Minimum requirements :** To construct Works to specified rating.
5. **Provide:** Any necessary supporting evidences to fulfill the criteria required for all targeted credits.

Ω End of Section



Specification created using NBS Chorus