WARMCEL 100

Technical Data Sheet

Specification

WARMCEL 100 for lofts and floors conforms to the requirements of British Standard BS5803, 1985 “Thermal Insulation for Use in Pitched Roof Spaces in Dwellings”, Part 3 “Specification for Cellulose Fibre Thermal Insulation for Application by Blowing” and the fire performance requirements of BS 5803,Part 4:1985 “Methods for Determining Flammability and Resistance to Smouldering”.

Certification

Registered by BSI Quality Assurance as a Firm of Assessed Capability to manufacture cellulose fibre thermal insulation in accordance with BS EN ISO 9003 1994; licence no. FM372. The assessment is on-going with random unannounced visits by the BSI Quality Assurance Inspectorate.

Approval

- Satisfies the requirements of the Building Regulations B1 (fitness of materials).
- Department of the Environment, Transport and Regions (DETR). Accepted for use under the Home Energy Efficiency Scheme and for “Minor Works Assistance Grants”.
- New Housing - Accepted by NHBC, Zurich, Foundation 15 and HAPM for use in lofts and timber frame walls.

Product Type

The insulation is composed of cellulose fibres derived from waste newsprint treated with fire retardant and biocidal additives.

Installation

Lofts

It is recommended that the insulation is installed according to the requirements laid down in BS 5803,Part 5:1985 - “Specification for Installation of Man Made Mineral Fibre and Cellulose Fibre Insulation”, with additional requirements as set out in the Company’s Installation Manual.

Product Properties

Test methods referred to in this section are described fully in BS 5803:1985, Parts 3 & 4.

Corrosion

The insulation does not contain water-soluble substances likely to accelerate the corrosion of metallic surfaces with which it comes into contact.

Settlement in lofts - at high humidity

When tested under conditions of high humidity the material settles by 2.2% against an allowable maximum 5%.

Settlement in lofts - under vibration

When tested under conditions of accelerated vibration the material settled by 5.3% this should be allowed for when calculating installed thicknesses.

Electrical wiring

WARMCEL has no deleterious effect on PVC covered electrical wiring.

Vapour resistivity

Vapour resistivity 9.3 MNs/gm, tested by wet cup method.

EXCEL Fibre Technology

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Thermal Insulation

For calculating the thermal performance for compliance with building regulations or other statutory regulations the material has a thermal conductivity (λ value) of 0.035 W/mK in horizontal loft spaces when measured by a guarded hot plate test to BS 874:1973 - "Methods of Determining Thermal Insulating Properties".

U-Values

All U-values are calculated to allow for thermal bridging using the proportional area method.

Assumed Roof Construction
10mm tiles on battens, sarking felt, loft space, 100x38mm joists on 600mm centres with Warmcel over & between, 10mm plasterboard.

Settled Thickness mm	U-Value W/m²K
93mm	0.35
109mm	0.30
132mm	0.25
164mm	0.20
217mm	0.15

Fire Performance

WARMCEL meets the requirements of the following British Standard BS5803 tests.

Flammability Resistance Test

A specimen of conditioned insulation is inserted in a tray having a plasterboard base and wooden sides representing a typical configuration of joists and ceiling forming the base of a loft. A small wooden crib is placed on the surface and inflammable liquid is added and then ignited. Observations are made of the occurrence and duration of flaming and smouldering of the insulation, outside the area covered by the crib, and the extent of spread of the combustion zone.

Smouldering Resistance Test

A specimen of conditioned insulation is inserted in a tray similar to that described in 6.3.1. containing a pre-heated metal cylinder. Observations are made of the duration of any flaming and smouldering of the insulation and of the extent of spread of the combustion zone.

Packaging

The packs are marked with the following information:

- This product conforms to BS5803:1985,Part 3.
- The product brand name e.g. WARMCEL
- Product Description - Blown Cellulose Fibre Insulation.
- Material accidentally soaked should be removed and replaced.
- Pack weight - 8.0kg

The following relates to horizontal loft spaces only:

- Maximum percentage settlement 5.3%.
- Average density installed 35kg/m^3, settled 34kg/m^3.
- Thermal conductivity 0.035W/mK at settled density.
- Health and safety. Warmcel is non-irritant and no special precautions are required. A disposable facemask should be worn when working in confined dusty areas. **When considering COSHH assessments involving the use of Warmcel the material should be classed as non-hazardous**

Installation

- Not to be used where ambient temperatures are consistently above 65°C.
- To be kept clear of hot flues, recessed luminaries and ventilation ducts. Avoid water saturation.
- Observe normal practice applicable to all insulants regarding loft ventilation and electrical wiring.
- Install in lofts in accordance with BS 5803:Part 5:1985 "Specification for Installation of Man Made Mineral Fibre and Cellulose Fibre Insulation".

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