

Xtratherm[®]
More than insulation

Fire Performance

Thermal Conductivity

Extensive Range

Superior Performance Insulation

AS LOW AS
X020
Xtratherm

Floors

SR/UF

Insulation for
Ground Supported and
Suspended Floors

Key Features

Superior Performance Phenolic

Thermal Conductivity
as low as 0.020W/mK

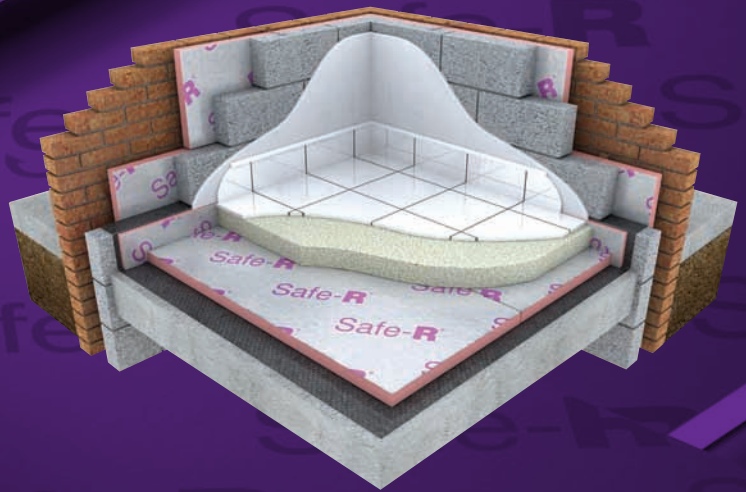
Low Smoke Obscuration

HCFC/CFC Free Zero ODP

Class 'O'/Low Risk Fire Rating

For New Build or Refurbishment

Fast Response Heating



www.xtratherm.com

Safe-R

Superior performance phenolic insulation

Safe-R | SR Solid & Suspended Systems

Xtratherm Safe-R is a superior performance rigid insulation with enhanced fire performance, consisting of a Class 'O' phenolic foam core with negligible smoke obscuration. Safe-R is faced with low emissivity aluminium facings both sides, and has a thermal conductivity as low as 0.020W/mK.

Xtratherm Safe-R SR/UF Under floor insulation boards are used to reduce the thermal transmittance of ground supported and suspended concrete floors. Xtratherm Safe-R boards can also be used in suspended timber floors between the joists.

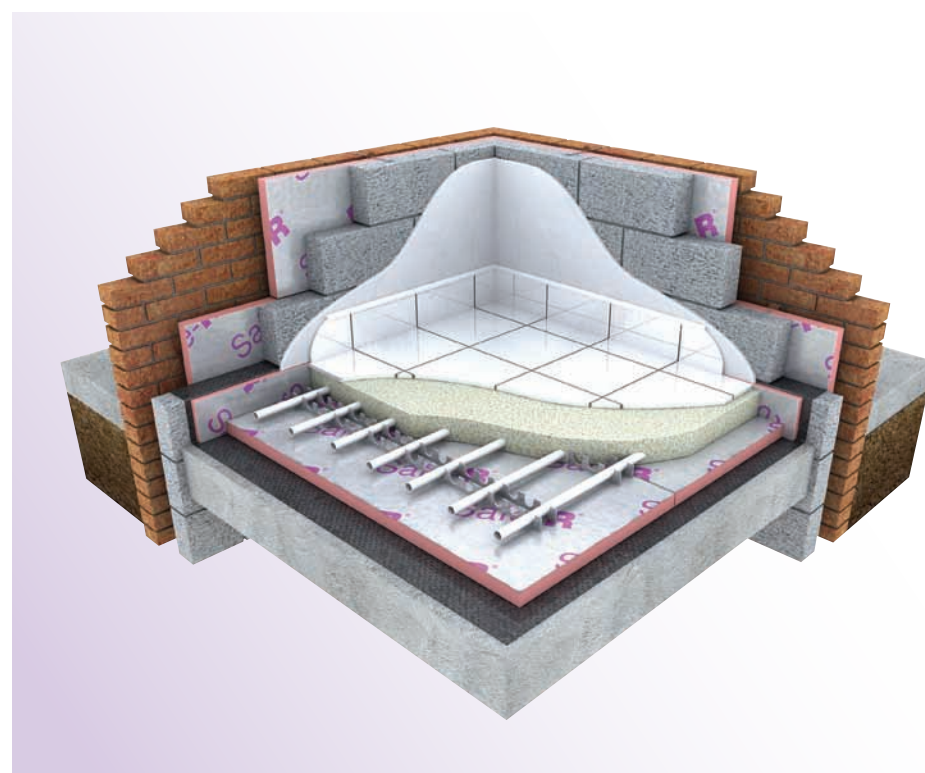
Xtratherm Safe-R SR/UF can be positioned below the slab or between the slab and the screed.

All ground supported floors including Xtratherm Safe-R SR/UF boards should include a suitable damp-proof membrane laid in accordance with CP 102: 1973.

(Code of practice for protection of buildings against water from the ground) and BRE Good Practice Guides 104 & 145. The DPM should extend up, meet and seal with the DPC.

Specification Clause

The floor insulation shall be Xtratherm Safe-R SR/UF manufactured to BS EN 13166:2008 by Xtratherm, comprising a CFC/HCFC free rigid Phenolic core between low emissivity foil facings. To be installed in accordance with instructions issued by Xtratherm. Refer to NBS clause E20 200, E20 30.



Property & Units

Density (Foam Core)
45 (Kg/m³)

Compressive Strength
>125 (kPa)

Water Vapour Resistivity
>100 (MNs/gm)

Thermal Conductivity
0.020 – 0.023 (W/mK)

Service Temperature
-20 to +100 (°C)

Xtratherm SR/UF

Length (mm)
2400

Width (mm)
1200

Thickness (mm)
25, 50, 60, 75, 80,
100, 120

**Other sizes available subject to quantity and lead time.*

Xtratherm Safe-R

Typical R-values

40mm
R-value: 1.739

50mm
R-value: 2.381

60mm
R-value: 2.857

75mm
R-value: 3.752

80mm
R-value: 3.810

100mm
R-value: 5.000

120mm
R-value: 6.000

General

Vertical upstands of insulation 25mm thick should be placed at the floor perimeter to minimise thermal bridging. Care should be taken to avoid damage to the insulation or damp proof membranes as the slab is being poured and operatives should make use of barrow runs and walk ways whilst installation progresses.

Typical U-values

Solid Concrete Floor (UK)					
Xtratherm SR/UF Thickness Required (mm)					
Perimeter/Area (P/A)					
	0.5	0.6	0.7	0.8	0.9
50	0.25	0.26	0.27	0.28	0.29
60	0.22	0.23	0.24	0.25	0.25
75	0.19	0.20	0.21	0.21	0.21
80	0.18	0.19	0.20	0.20	0.20
100	0.15	0.16	0.16	0.16	0.16

U-value W/mk



Safe-R Layed Below Concrete Floor Screed

Installation Guidelines

Laying Below Floor Slab

Where Xtratherm Safe-R Insulation is used below the floor slab, lay the hardcore in layers; min 150mm - max 225mm; each layer should be well compacted, with the surface blinded with quarry dust or sand to provide suitable surface for laying DPM.

A damp proof membrane e.g. 1200 gauge polythene or radon barrier subject to site conditions (architects specifications) should be laid over blinding with joints taped to prevent passage of ground moisture. The damp proof membrane should be carried up the wall until it meets and seals with the DPC.

Xtratherm Safe-R should be laid with closely butted joints, laid staggered with a break bonded pattern and fitted tightly at edges and around any service penetrations.

Boards can be cut using a trimming knife. In accordance with good practice, a polythene vapour control layer, minimum 0.125mm thick, should be laid over the boards with 150mm laps.

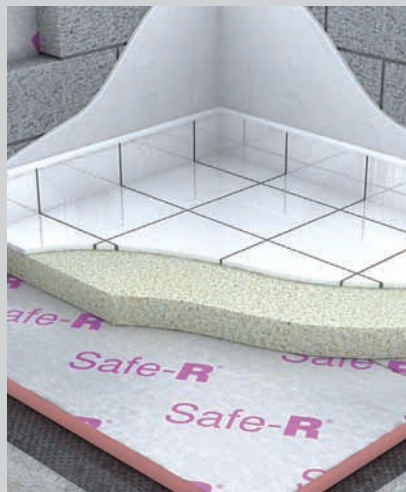
The concrete slab is laid to the correct thickness.

Laying Below Floor Screed

Where Xtratherm Safe-R Insulation is used below the floor screed, the same procedure should be followed ensuring that the floor slab onto which the insulation is being laid is level.

The concrete floor over which the insulation is to be laid should be left as long as possible to maximise drying out, in accordance with BS8203:1996 Section 3.1.2.

The minimum thickness of sand and cement screed is 65mm for domestic construction and 75mm for most other buildings. However, architectural specifications should be consulted.



Safe-R Layed Below Floor Screed

Standards

Xtratherm Safe-R range is manufactured to EN ISO 13166 under Quality Systems approved to EN ISO 9001:2008 Quality Management, EN ISO 14001:2004 Environmental Management and BS OHSAS 18001 Health and Safety Management System.

Storage

Xtratherm Safe-R should be stored off the ground, on a clean, flat surface and must be stored under cover. The polythene wrapping is not considered adequate protection for outside exposure.

Cutting

Xtratherm Safe-R can be readily cut using a sharp knife or fine toothed saw. Ensure tight fitting of the insulation boards to achieve continuity of insulation as asked for in accredited details.

Work Interruptions

During breaks in the build process and at the end of each working day, board edges and joints should be protected from inclement weather. Boards that have been allowed to get wet should not be used.

Packaging

Xtratherm Safe-R is wrapped in polythene packs and each pack is labelled with details of grade/type, size and number of pieces per pack. The packaging should not be considered as protection from the elements.

Availability

Xtratherm products are available through builder's merchants and specialist distributors throughout the UK and Ireland. For the location of your nearest stockist please contact Xtratherm.

Environmental

Xtratherm Safe-R is manufactured under ISO 14001:2004 Environmental Management with all major components sourced under 14001 accredited suppliers. It is manufactured without the use of CFC's or HCFC's and has Zero Ozone Depletion Potential with a GWP of less than 5.

Durability

Xtratherm Safe-R products are stable, rot proof and will remain effective for the life span of the building, dependent on specification and installation. Care should be taken to avoid contact with acids, petrol, alkalis and mineral oil, when contact is made, clean materials in a safe manner before installation. Solvent based adhesive containing methyl ethyl ketone, should not be used.



Xtratherm Technical Services

All the members of our technical team are individually BBA accredited to help you reach your low energy goals. BBA qualified in U-value calculation, condensation risk and also Thermal Bridging 3D analysis backed by BRE accreditation – when you call Xtratherm, you can be assured you're speaking to a qualified person.



SR/CW

Walls

Insulation for
Partial Fill Cavity Wall



SR/RS

Rainscreen

Insulation for
Rainscreen Application



SR/TB

Walls

Insulation for
Drylining Walls
Dot & Dab



SR/PR

Roofs

Insulation for
Pitched Roofs



SR/TB-MF

Walls

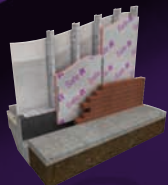
Insulation for
Drylining Walls Mechanically
Fixed to Battens



SR/STP

Soffit Plus

Insulation Composite for
Structural Ceiling Applications



SR/FB

Walls

Insulation for
Steel & Timber Framing



SR/UF

Floors

Insulation for
Ground Supported and
Suspended Floors

Rigid Insulation Flexible Solutions

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Good workmanship and appropriate site procedures are necessary to achieve expected thermal and airtightness performance. The example calculations are indicative only. Default values for components and cavities have been used, for specific U-value calculations contact Xtratherm Technical Support. Comprehensive guidance on installation should be consulted. Xtratherm technical literature and Agrément certification is available for download on the Xtratherm website. The information contained in this publication is, to the best of our knowledge, true and accurate but any recommendations or suggestions which may be made are without guarantee since the conditions of use are beyond our control.