

Fire Performance

Thermal Conductivity

Extensive Range

Superior Performance Insulation

Rainscreen

SR/RS

Insulation for Rainscreen Application

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







Safe-R | SR Rainscreen

For buildings of 18 metres or more in height, Xtratherm SR/RS Rainscreen board has been tested by BRE Global to meet the BR135 performance criteria when tested to BS 8414-1/2.

Modern Method of Construction offer many advantages on site. The speed and efficiency of the construction methods allow buildings to be erected faster, with precision components offering highly energy efficient wall floor and roof elements.

Xtratherm have developed the Safe-R Rainscreen insulation board SR/RS to bring the thermal performance of external rainscreen cladding constructions methods towards the zero carbon standards aspired to in proposed building regulations.

Using Xtratherm Safe-R SR/RS can provide the most efficient U-values with minimal thickness of insulation providing effective thermal and fire performance in buildings using a rainscreen facade.

BBA INSPEC

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The lightweight product achieves a thermal conductivity as low as 0.020 W/mK and addresses the stringent safety requirements with a Class 'O' fire rated insulation core and negligible smoke obscuration.

Specification Clause

The rainscreen insulation shall be Xtratherm Safe-R SR/RS _ _ _mm manufactured to BS EN 13166:2008 by Xtratherm, comprising a CFC/HCFC free rigid Phenolic core. To be installed in accordance with instructions issued by Xtratherm. Refer to NBS clause M21 210, M21 220, M21 230.



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/RS

Length (mm) 2400

Width (mm) 1200

Thickness (mm) 40, 50, 60, 75, 80, 90, 100, 120, 140

Xtratherm Safe-R

Typical R-values

40mm R-value: 1.739

50mm R-value: 2.381

60mm R-value: 2.857

75mm R-value: 3.572

80mm R-value: 3.810

100mm R-value: 5.000



Installation Guidelines



General

Xtratherm SR/RS Rainscreen board is a high performance external insulation system where a façade system is used as an external finish to the construction. The façade may consist of stone, ceramic, cementatious, metal or other material behind which the cavity may be ventilated.



Fixings

Safe-R SR/RS boards can be fixed using a number of proprietary fixing systems including rail and brackets type systems. Thermal bridging can be minimized by the inclusion of thermal breaks (supplied by some manufacturers), advice should be sought from system suppliers. Fixings should be installed in accordance with the manufacturer's recommendations and appropriate for fixing of rainscreen insulation. Thermal performance can be greatly improved by the inclusion of a second layer of insulation to the inner face of the wall construction.

U-values

The calculation of U-values should be done in accordance with BR443 2006 Conventions for U-value calculation. Because proprietary systems are used, Information from system suppliers should be passed onto Xtratherm Technical Support for U-value calculation.



Vapour Control

Condensation control in highly insulated buildings is an important factor in the design and should be considered in relation to the heating and ventilation systems specified, as well as the U-values achieved within the building elements. An adequate vapour control layer to the inner face of the wall is recommended. Calculation should be carried out in accordance with BS5250:2002 (Code of practice for the control of condensation in buildings).

The provision of firestops should be in accordance with current Building Regulations and standards.

Sitework

Fixing should be in accordance with fixing suppliers recommendations. Approved Rainscreen Cladding tape should be used to joint board edges to weatherproof the system.

BR135

For projects over 18m in height, prior to installation, it is a requirement the specifier/ façade designer ensures that the relevant warranty provider is satisfied that the proposed system specification and the performance has been considered as part of the overall risk assessment of the finished building. Contact Technical Support for more information on BR135 Tests Certification.

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 Interuptions

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 form 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.



CE Marking - Declaration of performance downloadable from **www.xtratherm.com**



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/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

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.