

XtroLiner

Class 'O' Modified PIR Insulation

Fire Performance

Thermal Conductivity

Extensive Range

Product Specifications

Class 'O' Modified PIR Insulation

Soffit

XO/ST

Soffit Board

Key Features

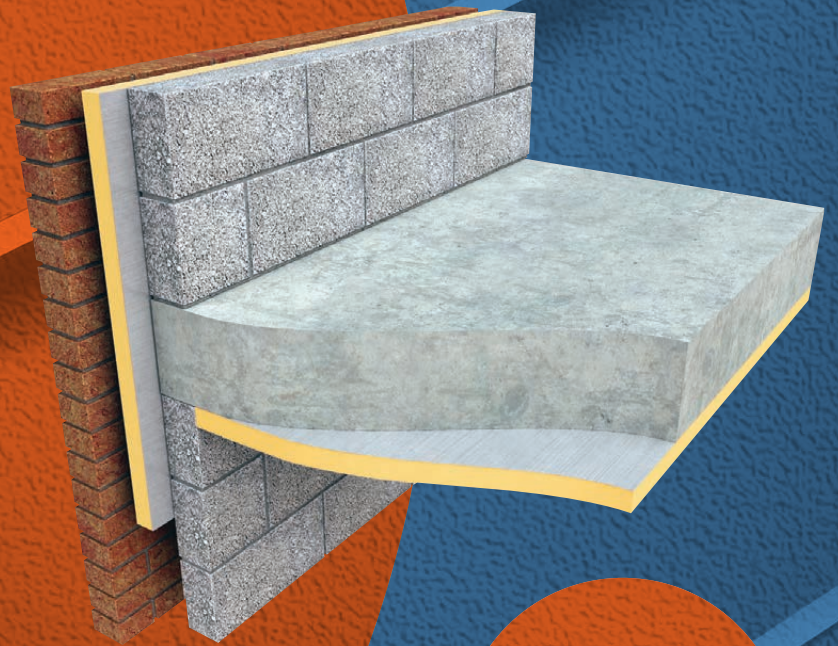
Class 'O' Modified PIR

Thermal Conductivity
0.021 W/mK

HCFC/CFC Free Zero ODP

Class 'O'/Low Risk Fire Rating

For New Build or Refurbishment



AS LOW AS
X021
Xtratherm®

Xtratherm®

More than insulation

www.xtratherm.com

XtroLiner

Product Specifications

XO Soffit Board

Xtratherm XO/ST Soffit Board is a modified PIR rigid insulation board that provides effective thermal and fire protection solutions in structural ceiling applications in commercial and residential buildings. XtroLiner XO range of modified PIR offers excellent insulation performance with a thermal conductivity of 0.021 W/mK and a Class 'O' fire rating. XtroLiner is CFC & HCFC free and is manufactured under the highest standards of ISO 9001 and 14001 Quality and Environmental Management Systems. The XtroLiner board is a modified polyisocyanurate (PIR) bonded to low emissivity textured aluminium foil facings.

Efficient Insulation

Using Xtratherm XtroLiner on soffit areas, whether new build or refurbishment situations can provide the most efficient U-values with minimal thickness of insulation. The product achieves a thermal conductivity as low as 0.021 W/mK and addresses the stringent safety requirements with a Class 'O' fire rated insulation. Xtratherm XO/ST can be fixed directly to the concrete slab, onto battens or used with proprietary fixing systems to provide an even surface. The lightweight rigid product is convenient to handle and allows for fast and easy fixing.

XtroLiner Soffit Board is supplied as a performance, rather than decorative product. Refer to XtroLiner Soffit Plus, a high performance laminate that offers security protection with a surface that will accept a decorative finish.

Specification Clause

The soffit insulation shall be Xtratherm XtroLiner XO/ST___mm manufactured to BS EN ISO 9001: 2000 by Xtratherm, comprising of CFC/HCFC free Class 'O' rigid modified polyisocyanurate (PIR) with textured low emissivity foil facings. To be installed in accordance with instructions issued by Xtratherm. Refer to NBS clause P10 42, P10 217.

Property & Units

Compressive Strength
>125 (kPa)

Water Vapour Resistivity
>100 (MNs/gm)

Thermal Conductivity
0.021 (W/mK)

Service Temperature
-20 to +100 (°C)

XtroLiner XO/ST

Length (mm)
2400

Width (mm)
1200

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

XtroLiner XO/ST

Typical R-values

50mm
R-value: 2.38

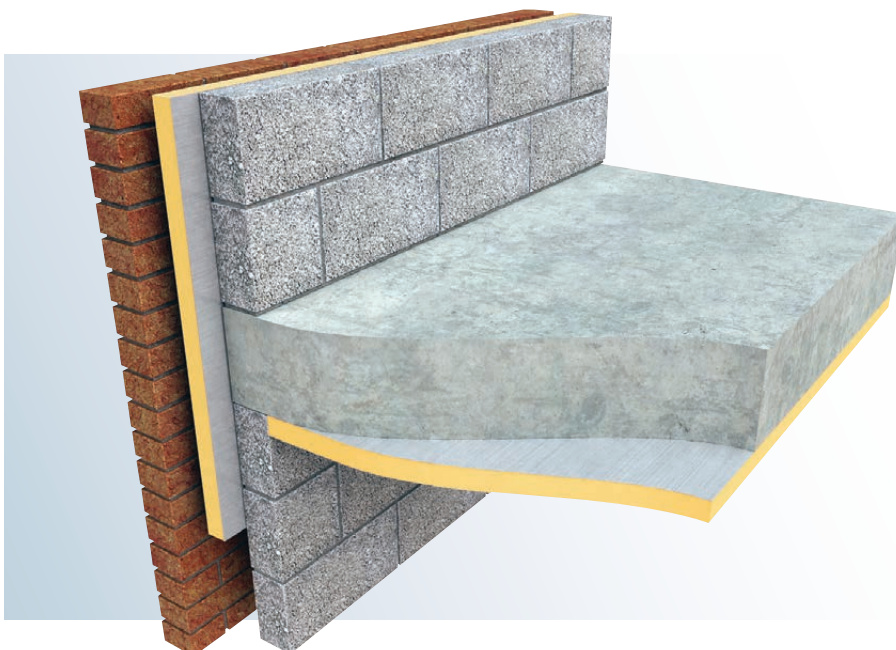
60mm
R-value: 2.86

75mm
R-value: 3.57

80mm
R-value: 3.81

100mm
R-value: 4.76

120mm
R-value: 5.71



Installation Guidelines

Directly to Concrete

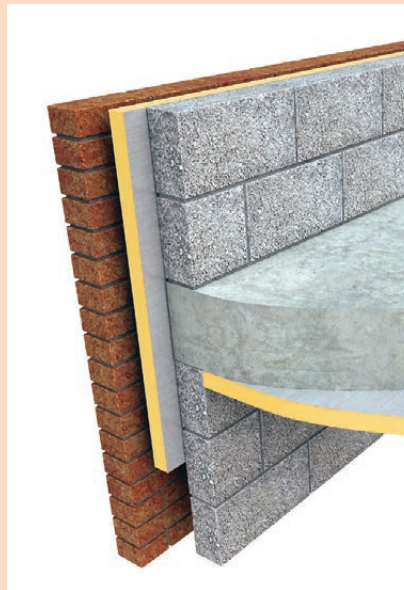
Ensure cavity wall insulation has continued past the soffit insulation to avoid thermal bridging.

Position Xtratherm XO/ST insulation stagger jointed onto the soffit ensuring all joints are supported.

Ensure boards are tightly butted. Fill any gaps with expanding foam.

Ensure approved fixings are used penetrating the soffit by a minimum of 40mm. Generally 11 fixings per board are required. Refer to manufacturers instructions.

Fixings should have a head diameter of at least 35mm. Boards joints can be covered with a suitable cover strip.



Fixing to Timber Battens/ Proprietary Systems

Timber battens may be used to provide an even surface when direct fixing to the soffit is not possible. Timber battens minimum 50mm x 40mm should be placed at minimum 600mm centres.

Battens should be treated timber and given enough time allowed to dry out.

Fix XO/ST to the timber battens using approved fixings at max 300mm centres, 50mm in from the edge of the boards.

When using proprietary metal grid systems refer to manufacturer for fixing instructions. Boards joints can be covered with a suitable cover strip.

Typical U-values

XtroLiner XO/ST Thickness Required (mm)

Solid Concrete (200mm)

50	60	75	80	100	120
0.37	0.31	0.25	0.24	0.19	0.16

Standards

Xtratherm XO range is manufactured to EN ISO 13165 under quality systems approved to EN ISO 9001:2000 quality management, EN ISO 14001:2004 environmental management and BS OHSAS 18001 Health and Safety Management System.

Storage

Xtratherm XO/ST 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 XO/ST Boards 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.

Packaging

Xtratherm XO/ST is wrapped in polythene packs and each pack is labelled with details of grade/type, size and number of pieces per pack.

Availability

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

CFC/HCFC Free

Xtratherm XO/ST is manufactured without the use of CFC's or HCFC's and has Zero Ozone Depletion Potential and has a GWP pf less than 5.

Durability

Xtratherm XtroLiner 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.

XtroLiner

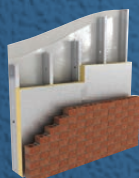
Class 'O' Modified PIR Insulation



XO/CW

Cavity Wall Partial Fill

XtroLiner XO/CW is an insulation for cavity walls where a residual cavity has to be maintained. The excellent thermal performance of the XtroLiner allows for very good U-values to be achieved whilst minimizing overall cavity wall thickness. XO/CW can be combined with Xtratherm Thermal Liner Boards to achieve U-values down to Zero Carbon fabric standards in traditional wall thicknesses.



XO/FB

Framing Board

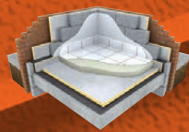
XtroLiner can be installed as a lining for timber or steel framing systems. The XtroLiner can be used to externally or internally line the frame and will dramatically cut thermal bridging.



XO/RS

Rainscreen

Xtratherm have developed the XtroLiner Rainscreen insulation board to bring the thermal performance of external Rainscreen cladding constructions methods towards the Zero Carbon standards aspired to in building regulations.

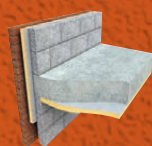


XO/UF

Floors

Solid & Suspended Systems

XtroLiner XO/UF under floor insulation boards are used to reduce the thermal transmittance of ground supported and suspended concrete floors. XtroLiner boards can also be used in suspended timber floors between the joists.



XO/ST

Soffit

XtroLiner Soffit is for use in concrete soffit applications in exposed floors such as underground car parks with habitable space above.



XO/STP

Soffit Plus

XtroLiner Soffit Plus has an additional layer of 6mm magnesium silicate board auto-adhesively bonded to the insulation offering a facing with enhanced impact resistance with a surface that can be decorated.



XO/PR

Roofs

Pitched Roofs

Using Xtratherm XO/PR on sloped roof areas can provide the most efficient U-values with minimal intrusion into valuable living space. Creating a Warm Roof by placing XO/PR over the rafters is a particularly effective way of insulating roofs to the higher performance levels required for Zero Carbon targets.

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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.