

XtroLiner

Class 'O' Modified PIR Insulation

Fire Performance

Thermal Conductivity

Extensive Range

Product Specifications

Class 'O' Modified PIR Insulation

Soffit

XO/STP

Soffit Plus Board

Key Features

Class 'O' Modified PIR

Non-Combustible Impact
Resistant Facing Board

Thermal Conductivity
0.021 W/mK

Class 'O'/Low Risk Fire Rating

Eliminates Cold Bridging

HCFC/CFC Free



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Xtratherm

XtroLiner

Product Specifications

XO Soffit Plus Board

Xtratherm XO/STP 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) with low emissivity textured aluminium foil facings bonded to impact resistant 6mm building panel offering a secure finish for ease of maintenance that accepts decorated finish.

Efficient Insulation with Durable Facing

Using Xtratherm XO/STP Soffit Plus 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.

The bonded facing of non combustibile medium density building panel is water and impact resistant providing a durable protection to which a decorative finish may be applied.

Xtratherm XO/STP 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.

Approved fixings should be used and installed in accordance with manufacturer's instructions and fitting pattern. Typically 12 steel fixings, min shank diameter of 5.2mm and head (or washer) diameter of 35mm, is used on a standard 86mm board, uniformly spaced at max 600mm across and 800mm along the board 50mm in from the edge. For specific suction pressures the fixing arrangement should be determined by manufacturers design. In situations where fire performance is a consideration, all-steel fasteners should be used. Account should be taken of any thermal bridging through the fixings as should the effect of any floor supporting beams. Fixing manufacturers: Ejot DDS 7.3 concrete anchor (steel fixings) or Fischer Hammerset DIPK 10mm (plastic fixings).



Property & Units

Compressive Strength
>120 (kPa)

Water Vapour Resistivity
>100 (MNs/gm)

Thermal Conductivity
0.021 (W/mK)

Service Temperature
-20 to +100 (°C)

XtroLiner XO/STP

Length (mm)
2400

Width (mm)
1200

Thickness (mm)
56, 66, 81, 86, 106, 126
**Includes 6mm liner*

XtroLiner XO/STP

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

**Insulation component only*

Specification Clause

The soffit insulation shall be Xtratherm XtroLiner XO/STP ___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 with 6mm building panel. To be installed in accordance with instructions issued by Xtratherm. Refer to NBS clause P10 42, P10 217.

Typical U-values

XtroLiner XO/STP Thickness Required (mm)

Solid Concrete (200mm)

56	66	81	86	106	126
0.37	0.31	0.25	0.24	0.19	0.16

Thickness includes 6mm building panel

Contact Xtratherm Technical Support for specific U-value calculations. Because of colour variations in the 6mm building panels the surface is not deemed to be decorative but will accept a decorative finish,

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/STP 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/STP 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/STP 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.

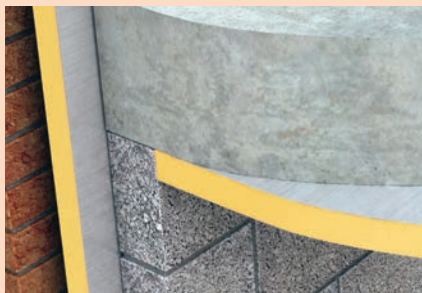
CFC/HCFC Free

Xtratherm XO/STP 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 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.

Installation Guidelines



Directly to Concrete

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

Lay Xtratherm XO/STP 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 12 fixings per board are required.

Refer to manufacturer's 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 min 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/STP 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.

XtroLiner

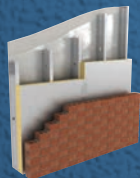
Class 'O' Modified PIR Insulation



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.

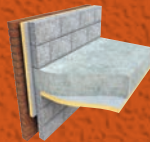


XO/UF

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.