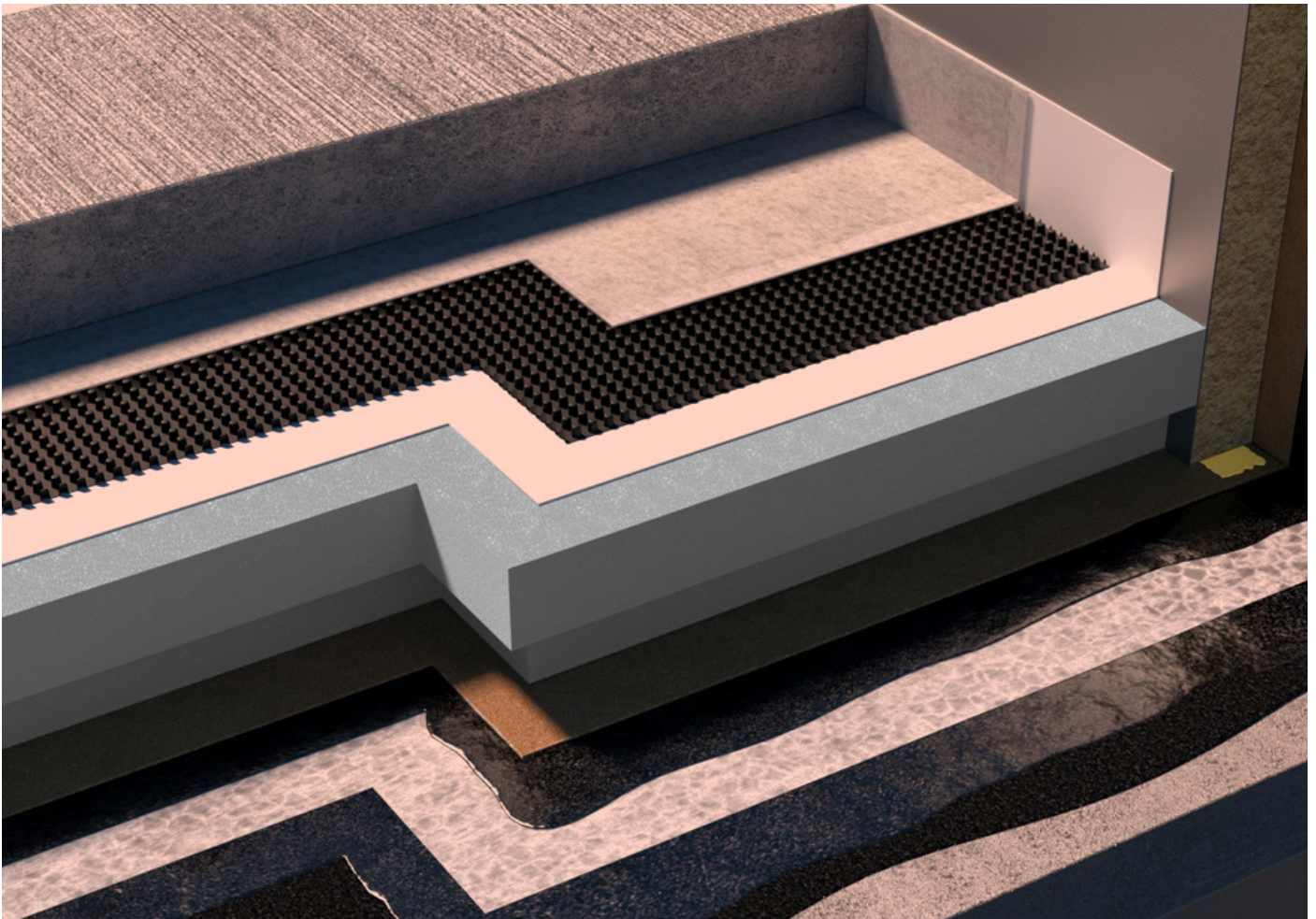


RAVATHERM XPS X 500 SL



A rigid, closed cell type extruded polystyrene board with integral high density skin.

Manufactured by

RAVATHERM XPS X 500 SL

General Information

RAVATHERM XPS X 500 SL inverted roof insulation are a rigid, closed cell type Extruded polystyrene board with integral high density skin. RAVATHERM XPS X 500 SL inverted roof insulation has a Zero Ozone Depletion Potential (ODP), a Global Warming Potential (GWP) of less than 5 and an A rating in accordance with the Green Guide to Specification. For use with suitable Inverted Roof Waterproofing systems.

Suitable applications

RAVATHERM XPS X 500 SL is suitable for use in roofs, roof terraces, enclosed balconies over heated space and insulated walkways in an inverted roof construction. When used in the inverted roof constructions listed in the Fire Performance section below roof constructions incorporating RAVATHERM XPS X 500 SL achieve Broof(t4) Classification to BS EN 13501-5 as required by Approved Document B 2019 edition, Section B4, Limitations on roof coverings.

RAVATHERM XPS X 500 SL is not suitable for use in inverted roof applications on specified attachments such as projecting open balconies, projecting enclosed balconies, recessed open balconies or recessed enclosed balconies.

RAVATHERM XPS X 500 SL is not suitable for use in warm roof applications (where the waterproofing is installed above the insulation board).

Certificates

BBA certificate No. 13/4995, ISO 9001@2008 Quality Management System, ISO 14001 :200 Environmental Management System, EPD as per ISO 14025 and EN 15804.

Fire Performance

As a roofing system for roofs, roof terraces, enclosed balconies over heated space and insulated walkways

In accordance with Annex of Commission Decision 2000/553/EC, when used in an inverted roof specification including an inorganic covering of either loose laid gravel with a thickness of at least 50mm or a mass ≥ 80 kg/m², sand/cement screed to a thickness of at least 30mm, or cast stone or mineral slabs of at least 40mm thickness a roof system incorporating RAVATHERM XPS X 500 SL can be considered to be unrestricted under the national Requirements (Classification Broof(t4) to BS EN 13501-5:2016).

Resistance to foot traffic

The product, in conjunction with the specified ballast layer, can accept limited foot traffic associated with maintenance operations (BBA Certificate No.13/4995).

Durability

The product will have a life of at least 25 years under normal circumstances (BBA Certificate No.13/4995).

Hexabromocyclododecane (HBCD) was phased out prior to the 21st August 2015.

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General information (continued)

Installation Instructions

Apply RAVATHERM XPS X 500 SL insulation boards parallel to roof perimeter long edges. Stagger end joints. Lay RAVATHERM XPS X 500 SL insulation boards with edges in moderate contact without forcing.

Cut RAVATHERM XPS X 500 SL insulation to fit neatly to perimeter blocking and around penetrations through roof, when using a 2nd layer stagger joints of insulation from first layer.

Apply no more RAVATHERM XPS X 500 SL insulation than can be covered with aggregate ballast/concrete roof pavers/green roofing in the same day.

Keep RAVATHERM XPS X 500 SL insulation minimum 75mm from heat emitting devices, and minimum 50mm from sidewalls of chimneys and vents.

Delivery conditions

Delivery form

Shrunk wrapped on a pallet, quantity depending on board thickness.

Storage and transport

During shipment, storage, installation and use, this material should not be exposed to flame or other ignition sources. This material contains a halogenated flame retardant additive system to inhibit accidental ignition from small fire sources.

Product identification

Information on the pack;

Product name.

Dimensions.

Approvals.

Production date.

RAVATHERM XPS X 500 SL

PRODUCT DESCRIPTION

Appearance top side	Grey Skin
Core	Grey colour, HFC free, Extruded polystyrene foam XPS (EN13164). Products comply with BS EN 13164: 2008 Thermal insulation products for buildings - factory made products of extruded polystyrene (XPS) - specification.
Appearance bottom side	Grey Skin

DECLARED PERFORMANCE

Essential characteristics	Performance	Unit	EN Code EN 13164	Standard
Density (aim, foam only)	42	kg/m ³	-	BS EN 1602
Dimensions and tolerances				
- Thickness	50, 75, 100	mm	T1	BS EN 822
- Width	600	mm	-	BS EN 822
- Length	1250	mm	-	BS EN 823
Thermal conductivity				
Declared value (1) - 50-200mm	0.031	W/mK	λ_D	BS EN 12667
Design value (1) - 50-200mm	0.032	W/mK	λ_U	BS EN 12667
Reaction to fire	Class E	-	Euroclass	B EN 13501-1
Mechanical properties				
- Compressive stress or compressive strength at 10% deformation	500	kPa	CS(10\Y)	BS EN 826
- Compressive creep max. after (50 years) < 2% deformation under stress oc	180	kPa	CC(2/1.5/50)oc	BS EN 1606
Hygrometric properties				
- Long term water absorption by immersion (28 days)	< 0.7	%	WL(T)	BS EN 12087
- Long term water absorption by diffusion				
- dN \geq 50 mm to <80 mm	< 2	%	WD(V)	BS EN 12088
- dN \geq 80 mm	< 1	%	WD(V)	BS EN 12088
- Water vapour diffusion resistance factor (μ), typical	150	-	MU	BS EN 12086
- Freeze/thaw, after 300 cycles	< 1	%	FTCD	BS EN 12091
- Dimensional stability under specified temperature and humidity conditions	< 5	%	DS(70,90)	BS EN 1604
- Deformation under specified compressive load and temperature conditions	\leq 5	%	DLT(2)5	BS EN 1605
Environmental properties				
- Ozone depletion potential	Zero	-	-	-
- Global warming potential	< 5	-	-	-
Other properties				
- Linear thermal expansion coefficient	0.07	mm/m·K	-	-
- Maximum service temperature	-50/+75	°C	-	-
- Capillarity	0	-	-	-

(1) Declared thermal conductivity λ_D according to EN 13164 (§ 4.2.1; Annex A; Annex C.2 and C.4.1)

EN designation code T1-CS(10\Y)500-CC(2/1,5/50)180-WL(T)0,7-WD(V)2-FT1-DS(TH)-DLT(2)5

This information given in good faith and is based on the latest knowledge available to Quantum Insulation Ltd. Whilst every effort has been made to ensure that the contents of the publication are current while going to press, customers are advised that products, techniques and codes of practice are under constant review and liable to change without notice.

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24/08/24