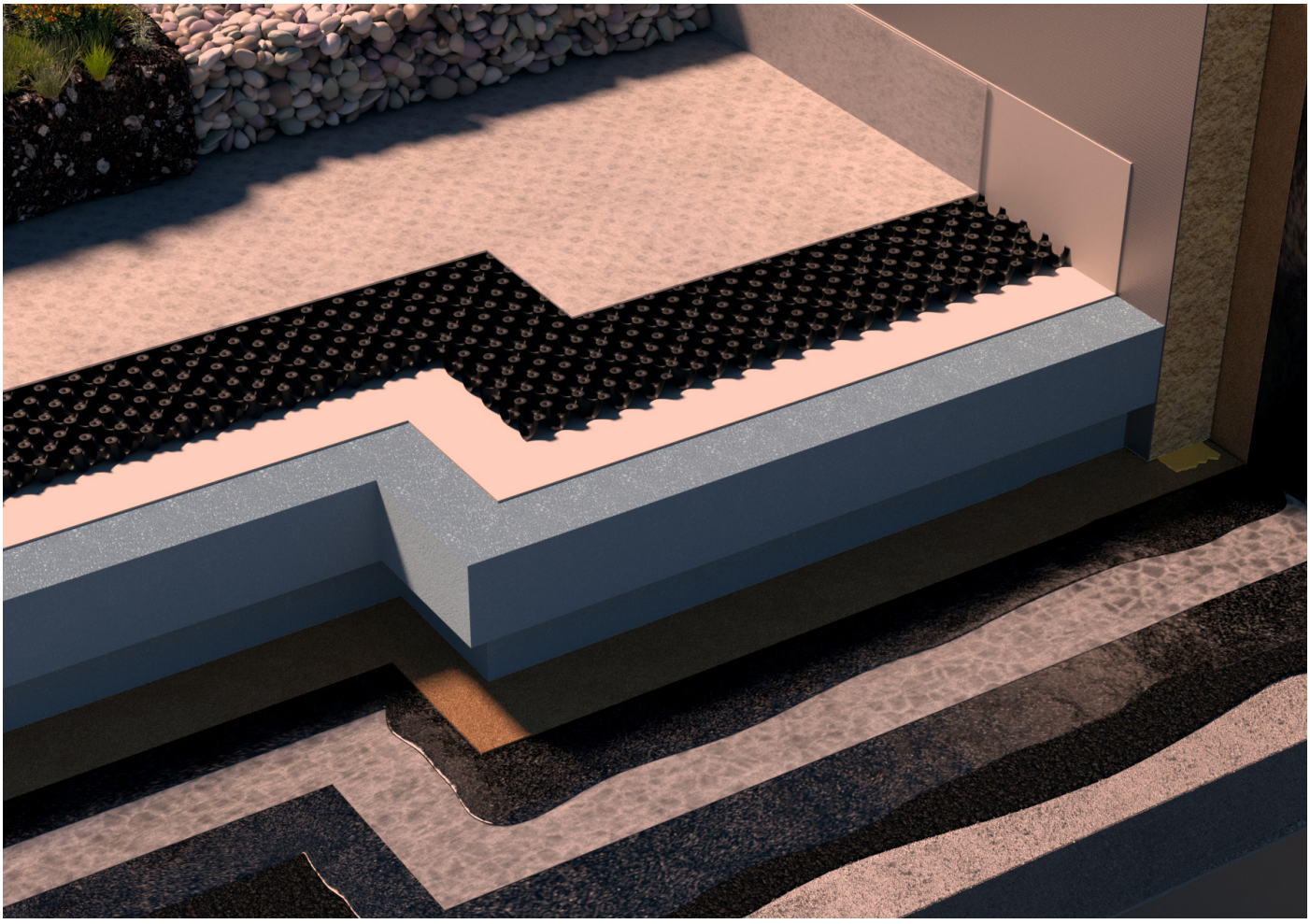
QUANTUM INSULATION

Product Data Sheet

RAVATHERM XPS X 300 SL



Inverted Roof Insulation with a unique rigid, closed cell type extruded polystyrene board with integral high density skin.

Manufactured by

Ravago BUILDING SOLUTIONS

RAVATHERM XPS X 300 SL

General Information

RAVATHERM XPS X 300 SL Inverted Roof Insulation is a unique rigid, closed cell type extruded polystyrene board with integral high density skin. RAVATHERM XPS X 300 SL utilises infra-red blocking particles to scatter and reflect heat radiation.

RAVATHERM XPS X 300 SL has a Zero Ozone Depletion Potential (ODP), a Global Warming Potential (GWP) of less than 5 and a Green Guide to Specification A+ rating.

For use with appropriate Waterproofing Systems.

Use with RAVATHERM XPS X MK Water Flow Reducing Layer prior to the installation of paving, ballast, a green roof or timber decking.

Certificates

ISO 9001:2008 Quality Management System, ISO 14001:2004 Environmental Management System, EPD as per ISO 14025 and EN 15804, Green Guide to Specification Certificate No. 508c, BBA Certificate 17/5397.

Installation Instructions

Apply RAVATHERM XPS X 300 SL Inverted Roof Insulation boards parallel to roof perimeter long edges. Stagger end joints.

Lay RAVATHERM XPS X 300 SL Inverted Roof Insulation boards with edges in moderate contact without forcing.

Cut RAVATHERM XPS X 300 SL Inverted Roof 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 300 SL Inverted Roof Insulation than can be covered with aggregate ballast/concrete roof pavers/green roofing in the same day.

Keep RAVATHERM XPS X 300 SL Inverted Roof Insulation minimum 75mm from heat emitting devices, and minimum 50mm from sidewalls of chimneys and vents.

Fire Performance

BS 476 Part 3 : 2004 - When ballasted with aggregate (minimum depth of 50 mm), or fully-supported cast stone or mineral slabs of at least 40 mm thickness, a roof construction incorporating RAVATHERM XPS X 300 SL may be considered to be of designation EXT.F.AA (low vulnerability in Scotland) and as such is unrestricted by the National Building Regulations.

BS EN 13501-5:2016 'Euroclass A5' - When ballasted with aggregate (minimum depth of 50 mm), or fully-supported cast stone or mineral slabs of at least 40 mm thickness, a roof construction incorporating RAVATHERM XPS X 300 SL may be considered to be of designation T4 and as such is unrestricted by the National Building Regulations.

BS EN 13501-1:2016 'Euroclass A1' - RAVATHERM XPS X 300 SL Inverted Roof Insulation contains PolyFR, a REACH compliant flame retardant, that ensures Euroclass E performance.

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

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RAVATHERM XPS X 300 SL

PRODUCT DESCRIPTION	
Appearance top side	Grey Skin
Core	Grey color, HFC free, Extruded polystyrene foam XPS (EN13164).
Appearance bottom side	Grey Skin

DECLARED PERFORMANCE				
Essential characteristics	Performance	Unit	EN Code	Standard
Ozone Depletion Potential	Zero	-	-	-
Global Warming Potential	< 5	-	-	-
Density (aim, foam only)	34	kg/m³	-	BS EN 1602
Dimensions and tolerances - Thickness - Width - Length	 50, 80, 100, 120, 130,140, 160, 180, 200, 205 600 1250	 mm mm mm	 T1 - -	 BS EN 823 BS EN 822 BS EN 822
Thermal conductivity Declared value (1) - Thickness 40-50 mm - Thickness 80-220mm	 0.030 0.031	 W/mK W/mK	 λ_D	 BS EN 13164
Mechanical properties - Compressive strength at 10% deformation - Design load 2% max. deflection (50 years)	 300 110	 kPa kN/m²	 CS(10\Y)300 CC(2/1.5/50)oc	 BS EN 826 B S EN 1606
R_D values - 50mm - 80mm - 100mm - 120mm - 130mm - 140mm - 160mm - 180mm - 200mm - 205mm	 1.60 2.50 3.15 3.75 3.82 4.35 5.00 5.60 6.25 6.20	 m².K/W m².K/W m².K/W m².K/W m².K/W m².K/W m².K/W m².K/W m².K/W m².K/W	 - - - - - - - - - -	 - - - - - - - - - -
Hygrometric properties - Long term water absorption by immersion (28 days) - Long term water absorption by diffusion - Water vapour diffusion resistance factor (μ), typical - Freeze/thaw, after 300 cycles	 <0.7 <3 80-200 <1	 vol % vol % vol % vol %	 - - - FTi	 BS EN 12087 BS EN 12088 BS EN 12086 BS EN 12091
Reaction to fire	Class E	-	Euroclass	BS EN 13501-1 2016
Linear thermal expansion coefficient	0.07	mm/m.K	-	-
Maximum service temperature	-50 /+75	°C	-	-
Capillarity	0	-	-	-
Surface	Skin	-	-	-
Edge profile	shiplap	-	-	-

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

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RAVATHERM XPS X 300 SL

Delivery conditions

Delivery form

Standard delivery form is a 'supercube'. Deliveries are on a curtain-side or optional flat-bed articulated vehicle. One supercube containing approximately 15m^3 and is approximate are 2400 x 2400 x 2500mm. A full articulated truck load contains 5 supercubes or approximately 70m^3.

Unloading

Supercubes are intended to be unloaded and crane lifted using strops in 2 movements;
1. lift the supercube clear of the vehicle and allow to settle
2. lift the supercube to roof level

Fork extensions can also be used to unload a supercube, and can be supplied with the delivery if requested in advance.

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. Batch number.

PACK AND SUPERCUBE UNIT SIZES

Board Thickness (mm)	Board Sizes (mm)	Board per pack	Packs per Supercube
50	600 x 1250	8	48
80	600 x 1250	5	48
100	600 x 1250	4	48
120	600 x 1250	3	52
130	600 x 1250	3	56
140	600 x 1250	3	48
160	600 x 1250	2	64
180	600 x 1250	2	56
200	600 x 1250	2	48
205	600 x 1250	2	48

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.

For further information on Quantum Insulation products and services please call **01858 456018** or email **sales@quantuminsulation.com**

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