

RAVATHERM[™] XPS X HANDY GUIDE

RAVAGO HEADQUARTERS | King's Lynn



XPS INSULATION THAT PUTS YOU ON THE MAP

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Handy Guide Version 1 20230117



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About Ravago Building Solutions

Ravago Building Solutions is the largest producer of extruded polystyrene (XPS) insulation in Europe.

In the UK, our Ravatherm XPS X range of thermal insulation can be used in a wide range of roofing, flooring and wall applications.

Our products are made and despatched from King's Lynn in Norfolk, where we began making the UK's first-ever range of XPS insulation products over 60 years ago. We have been investing in innovation ever since.

We offer a wide range of products in several thicknesses and various compressive strengths to meet the performance requirements of buildings.

Ravatherm XPS X thermal insulation is manufactured by an extrusion process, which results in a homogeneous, closed-cell material structure, smooth surface skin (extrusion skin) and many favourable material characteristics.

Our products are chosen by architects, specifiers and constructors across the world.

Ravago Building Solutions can provide help, advice and information in order to help you achieve the solutions you are looking for.

RAVATHERM™ XPS X

Benefits & Characteristics

	Excellent thermal insulation		Frost resistant		Environmental friendly
	Resistance to high loads		High compression strength		Third party certification
	Waterproof, negligible moisture uptake		Resistant to deterioration		Energy saving
	Rigid insulation board		Quick & simple installation		Flame retardant
	Lightweight & easy to handle		Cost efficient solution		Made in the UK

Applications

	Inverted flat roofs		Basement floors & retaining walls		Car park decks
	Blue roofs		Commercial heavy duty floors		Passivhaus projects
	Green and brown roofs		Cold store facilities and data centres		EWI solutions
	Roof terraces		Swimming pools		
	Residential floors		Below DPC applications		

RAVATHERM™ XPS X 300 SB

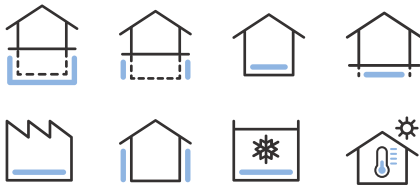


Ravatherm XPS X 300 SB is an easy to install XPS (Extruded Polystyrene) insulation with a compressive strength of 300kPa, for use in floors, basements and swimming pool applications.

Due to its low water absorption properties, this product is also used extensively below dpc level in cavity wall applications.

Available in thicknesses from 30mm up to 200mm.

Applications



Compressive Strength at 10% 300kPa

130 kN/m² - Design Compressive Strength

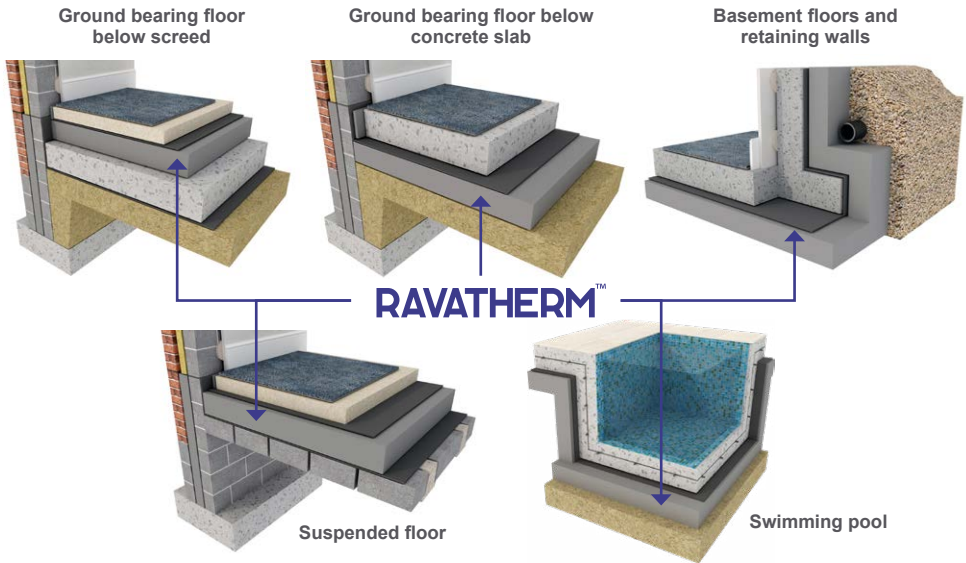
(DCS is the load that if applied as a UDL for 50 years then max compression 2%)

Pack & Bulk unit sizes



Thickness (mm)	Width (mm)	Length (mm)	Boards/pack	m ² /pack	Packs/bulk unit	m ² /bulk unit
30	600	2500	14	21	24	504
40	600	2500	10	15	24	360
50	600	2500	8	12	24	288
60	600	2500	7	10.5	24	252
75	600	2500	5	7.5	28	210
100	600	2500	4	6	24	144
125	600	2500	3	4.5	28	126
150	600	2500	3	4.5	24	108
200	600	2500	2	3	24	72

Installations



Thermal resistance¹

Thickness(mm)	30	40	50	60	75	100	125	150	200
R _d m ² .K/W	1.00	1.30	1.65	1.95	2.40	3.20	4.00	4.80	6.45

DESIGNATION CODE: XPS-EN 13164-T1-CS(10\Y)300-CC(2/1.5/50)130-DS(70,90)-WL(T)0.7- WD(V)1,2,3(1)-FTCD1

Properties	Value	Unit	Standard	
Thermal Conductivity Declared	< 60mm ≥ 60mm	0.030 0.031	W/m.K W/m.K	EN 13164
Compressive stress or compressive strength@ 10% deformation	300	kPa	EN 826	
Compressive Creep max after 50 years < 2% deformation under stress σC	130	kPa	EN 1606	
Water vapour diffusion resistance factor μ (tabulated value)	100	-	EN 12086	
Long term water absorption by total immersion	< 0.7	%	EN 12087	
Water pick-up by diffusion	50 < 80mm ≥ 80mm	< 2 < 1	%	EN 12088
Water pick up after Freeze Thaw	< 1	%	EN 12091	
Dimensional stability under specified temperature (70°C) and humidity conditions (90%rh)	< 5	%	EN 1604	
Deformation under specified compressive load (40kPa) and temperature (70°C) conditions	< 5	%	EN 1605	
Coefficient of linear thermal expansion (typical value)	0.07	mm/(m.K)	-	
Fire Performance	E	Euroclass	EN 13501-1	
Temperature limits	-50/+75	°C	-	
Thickness tolerances	1	Class	EN 823	
Edge Profile	Butt Edge			
Surface finish	Skin			

RAVATHERM™ XPS X 300 SL



Ravatherm XPS X 300 SL is a high-performance, flame retarded multi-purpose extruded polystyrene board for use on inverted flat roofs, green, brown and blue roofs. It boasts exceptional lambda insulation performance and a Global Warming Potential (GWP) of less than five.

Applications



Compressive Strength at 10% 300kPa

130 kN/m² - Design Compressive Strength

(DCS is the load that if applied as a UDL for 50 years then max compression 2%)



Pack & Bulk unit sizes

Thickness (mm)	Width (mm)	Length (mm)	Boards/pack	m ² /pack	Packs/bulk unit	m ² /bulk unit
50	600	1250	8	6	48	288
80	600	1250	5	3.75	48	180
100	600	1250	4	3	48	144
115	600	1250	3	2.25	56	126
120	600	1250	3	2.25	56	126
130	600	1250	3	2.25	56	126
140	600	1250	3	2.25	48	108
145	600	1250	3	2.25	48	108
160	600	1250	2	1.5	64	96
165	600	1250	2	1.5	64	96
175	600	1250	2	1.5	56	84
180	600	1250	2	1.5	56	84
190	600	1250	2	1.5	48	72
195	600	1250	2	1.5	48	72
200	600	1250	2	1.5	48	72

Installations

Inverted Green & Brown Roof

Inverted Blue Roof

Inverted Flat Roof with Paving/Ballast



RAVATHERM™

Thermal resistance¹

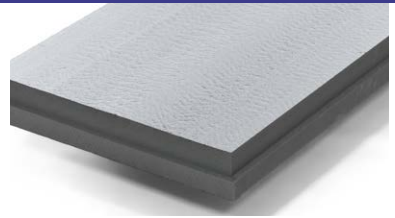
Thickness(mm)	50	80	100	115	120	130	140	145	160	165	175	180	190	195	200
R _d m ² .K/W	1.65	2.6	3.2	3.7	3.85	4.2	4.5	4.65	5.15	5.3	5.6	5.8	6.15	6.25	6.45

DESIGNATION CODE: XPS-EN 13164-T1-CS(10\Y)300-CC(2/1.5/50)130-DS(70,90)-WL(T)0.7- WD(V)1,2,3⁽¹⁾-FTCD1

Properties	Value	Unit	Standard
Thermal Conductivity Declared	< 60mm ≥ 60mm	0.030 0.031	W/m.K W/m.K
Compressive stress or compressive strength@ 10% deformation	300	kPa	EN 826
Compressive Creep max after 50 years < 2% deformation under stress σC	130	kPa	EN 1606
Water vapour diffusion resistance factor μ (tabulated value)	100	-	EN 12086
Long term water absorption by total immersion	< 0.7	%	EN 12087
Water pick-up by diffusion	50 < 80mm ≥ 80mm	< 2 < 1	% EN 12088
Water pick up after Freeze Thaw	< 1	%	EN 12091
Dimensional stability under specified temperature (70°C) and humidity conditions (90%rh)	< 5	%	EN 1604
Deformation under specified compressive load (40kPa) and temperature (70°C) conditions	< 5	%	EN 1605
Coefficient of linear thermal expansion (typical value)	0.07	mm/(m.K)	-
Fire Performance	E	Euroclass	EN 13501-1
Temperature limits	-50/+75	°C	-
Thickness tolerances	1	Class	EN 823
Edge Profile	Ship lap		
Surface finish	Skin		

RAVATHERM™ XPS X 500 SL

Ravatherm XPS X 500 SL thermal insulation with its closed cell structure is a perfect solution for the thermal insulation of heavy-duty inverted roofs, floor structures and load-bearing base slabs. It offers high strength with little compressive deformation and excellent thermal insulation properties even in damp environments over the long term.



Applications



**Compressive Strength at 10% 500kPa
180 kN/m² - Design Compressive Strength**

(DCS is the load that if applied as a UDL for 50 years then max compression 2%)

Thermal resistance ¹				
Thickness(mm)	50	75	100	
R _d m ² .K/W	1.60	2.30	3.10	
DESIGNATION CODE: XPS-EN 13164-T1-CS(10\Y)500-CC(2/1.5/50)180-DS(70,90)-WL(T)0.7- WD(V)1,2,3⁽¹⁾-FTCD1				
Properties	Value	Unit	Standard	
Thermal Conductivity Declared	< 60mm ≥ 60mm	0.031 0.032	W/m.K W/m.K	EN 13164
Compressive stress or compressive strength@ 10% deformation	500	kPa	EN 826	
Compressive Creep max after 50 years < 2% deformation under stress σC	180	kPa	EN 1606	
Water vapour diffusion resistance factor μ (tabulated value)	100	-	EN 12086	
Long term water absorption by total immersion	< 0.7	%	EN 12087	
Water pick-up by diffusion	50 < 80mm ≥ 80mm	< 2 < 1	%	EN 12088
Water pick up after Freeze Thaw	< 1	%	EN 12091	
Dimensional stability under specified temperature (70°C) and humidity conditions (90%rh)	< 5	%	EN 1604	
Deformation under specified compressive load (40kPa) and temperature (70°C) conditions	< 5	%	EN 1605	
Coefficient of linear thermal expansion (typical value)	0.07	mm/(m.K)	-	
Fire Performance	E	Euroclass	EN 13501-1	
Temperature limits	-50/+75	°C	-	
Thickness tolerances	1	Class	EN 823	
Edge Profile	Ship lap			
Surface finish	Skin			

Pack & Bulk unit sizes

Thickness (mm)	Width (mm)	Length (mm)	Boards/pack	m ² /pack	Packs/bulk unit	m ² /bulk unit
50	600	1250	8	6	48	288
75	600	1250	5	3.75	56	210
100	600	1250	4	3	48	144
120**	600	1250	3	2.25	56	126
140**	600	1250	3	2.25	48	108
160**	600	1250	2	1.5	64	96

**Made to order / may be subject to minimum run

RAVATHERM™ XPS X 700 SL

Ravatherm XPS X 700 SL closed-cell polystyrene foam thermal insulation, with its excellent thermal insulation capability, high compressive strength and resistance to moisture, can be safely used in locations where good thermal insulation capability is only one of many complex requirements. It is suitable for load-bearing industrial floors, base slabs or high-load rooftop car parks.



Applications



Compressive Strength at 10% 700kPa

250 kN/m² - Design Compressive Strength

(DCS is the load that if applied as a UDL for 50 years then max compression 2%)

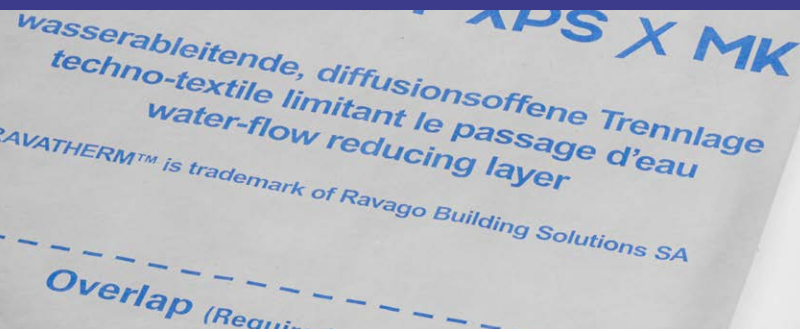
Thermal resistance ¹				
Thickness(mm)	50	75	100	
R _d m ² .K/W	1.60	2.30	3.10	
DESIGNATION CODE: XPS-EN 13164-T1-CS(10(Y)700-CC(2/1.5/50)250-DS(70,90)-WL(T)0.7-WD(V)1,2,3 ⁽¹⁾ -FTCD1				
Properties	Value	Unit	Standard	
Thermal Conductivity Declared	< 60mm	0.031	W/m.K	EN 13164
	≥ 60mm	0.032	W/m.K	
Compressive stress or compressive strength@ 10% deformation	700	kPa	EN 826	
Compressive Creep max after 50 years < 2% deformation under stress σC	250	kPa	EN 1606	
Water vapour diffusion resistance factor μ (tabulated value)	100	-	EN 12086	
Long term water absorption by total immersion	< 0.7	%	EN 12087	
Water pick-up by diffusion	50 < 80mm	< 2	%	EN 12088
	≥ 80mm	< 1		
Water pick up after Freeze Thaw	< 1	%	EN 12091	
Dimensional stability under specified temperature (70°C) and humidity conditions (90%rh)	< 5	%	EN 1604	
Deformation under specified compressive load (40kPa) and temperature (70°C) conditions	< 5	%	EN 1605	
Coefficient of linear thermal expansion (typical value)	0.07	mm/(m.K)	-	
Fire Performance	E	Euroclass	EN 13501-1	
Temperature limits	-50/+75	°C	-	
Thickness tolerances	1	Class	EN 823	
Edge Profile	Ship lap			
Surface finish	Skin			

Pack & Bulk unit sizes

Thickness (mm)	Width (mm)	Length (mm)	Boards/pack	m ² /pack	Packs/bulk unit	m ² /bulk unit
50	600	1250	8	6	48	288
75	600	1250	5	3.75	56	210
100	600	1250	4	3	48	144
120**	600	1250	3	2.25	56	126

**Made to order / may be subject to minimum run

RAVATHERM™ XPS X MK



Ravatherm XPS X MK is a water flow reducing layer (WFRL) used in conjunction with Ravatherm XPS X 300 SL. A WFRL is a critical component of an inverted flat roof, minimising heat loss due to the rainwater cooling effect. This product is a polyethylene geotextile.

Applications



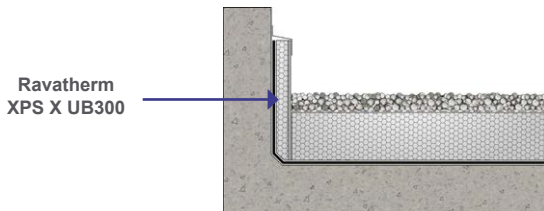
Width of roll	Length of roll	Weight for m ²	Weight of roll
1,5 m	50 m	~ 63 g/m ²	~ 5 kg
3,0 m	100 m	~ 63 g/m ²	~ 19 kg

Properties	Method	Unit	Values
Reaction to fire	EN 11925-2	class	E*
Water tightness	EN 1928 (A)	class	W1
Sd-value	EN ISO 12572	m	0,01 (+0,015/-0,007)
Tensile force (MD)	EN 12311-1	N/5cm	310 ± 50
Elongation (MD)	EN 12311-1	%	17 ± 5
Tensile force (XD)	EN 12311-1	N/5cm	310 ± 50
Elongation (XD)	EN 12311-1	%	20 (± 6)
Nail Shank (MD)	EN 12310-1	N	55 ± 20
Nail Shank (XD)	EN 12310-1	N	50 ± 20
Flexibility at low temperature	EN 1109	°C	-40

Artificial aging by UV and heat:			
Tensile force (MD)	EN 12311-1	%	-15
Elongation (MD)	EN 12311-1	%	-25
Tensile force (XD)	EN 12311-1	%	-15
Elongation (XD)	EN 12311-1	%	-30
Water tightness	EN 1928 (A)	class	W1

RAVATHERM™ XPS X UB300

Ravatherm XPS X UB300 pairs the exceptional thermal performance of Ravatherm XPS X 300 SB with a 6mm fibre cement layer, resulting in a specialist insulation board for use on parapets and upstands. It has been designed to address the challenge of thermal bridging in flat roofs.



Properties	Value	Unit	Standard
Thermal Conductivity Declared	< 60 mm	0.030	W/m.K EN 13164
Compressive stress or compressive strength@ 10% deformation	300	kPa	EN 826
Tensile strength	300	kPa	EN 1607
Water vapour diffusion resistance factor μ (tabulated value)	-	-	EN 12086
Long term water absorption by total immersion	1.5	%	EN 12087
Dimensional stability under specified temperature (70°C) and humidity conditions (90%rh)	< 5	%	EN 1604
Coefficient of linear thermal expansion (typical value)	0.07	mm/(m.K)	-
Fire performance	E	Euroclass	EN 13501-1
Temperature limits	-50/+75	°C	-
Tolerances	Thickness	-0.5/+0.5	mm EN 823
	Width	-3/+3	mm EN 822
	Length	-6/+6	mm EN 822
Edge profile	Butt edge		

DESIGNATION CODE: XPS - EN 13164 - T3 -CS(10\Y)300 - DS(70,90) - WL(T)1,5 - TR200

Surface finish	6 mm fibre cement flat sheet		
Tolerances	Thickness	-0/+0.6	mm
	Width	+0/-2	mm
	Length	+0/-2	mm
Fire performance	A1	Euroclass	EN 13501-1

1 N/mm² = 10³ kPa = 1MPa

Pack size

Thickness (mm)	Width (mm)	Length (mm)	Boards/pack	m ² /pack	Packs/bulk unit	m ² /bulk unit
56	600	1200	42	30.24	8	241.92

Dimension shows overall product thickness including 6mm fibre cement flat sheet. Insulation is 50mm XPS

RAVATHERM™ SW A2 Upstand

Ravatherm SW A2 Upstand pairs Ravago stonewool insulation slab with a 6mm fibre cement layer and it is to be used vertically as an upstand board in the Inverted Roof finish. It has been designed to meet the current Approved Document B of the Building Regulations requirement that any attachment to the external walls of relevant buildings above 11m in height must use non-combustible materials in order to be compliant. Our new Ravatherm SW A2 Upstand board has been tested against Reaction to Fire EN 13501-1 and achieves a Euroclass A2-s1, d0 making it non-combustible.



Properties	Value	Unit	Standard
Non-Combustible Upstand Insulation Board			
Fire performance	A2-s1, d0	-	EN 13501-1
Board size	Thickness (inc. facing)	56	mm
	Width	600	mm
	Length	1200	mm
Board weight	13.8	kg/m ²	
Facing fibre cement board			
Colour	Grey		
Thickness	6	mm	EN 823
Density	1375	kg/m ³	EN 1602
Thermal conductivity	0.30	W/m.K	EN 13164
Fire performance	A1	-	EN 13501-1
Insulation Mineral wool			
Thickness	50	mm	EN 823
Compressive strength @10% deformation	≥ 20	kPa	EN 826
Thermal conductivity declared	0.035	W/m.K	EN 12667
Thermal resistance	1.43	m ² K/W	EN 13162
Density	110	kg/m ³	EN 1602
Short term water absorption	<1	kg/m ²	EN 1609
Fire performance	A1	-	EN 13501-1

1 N/mm² = 10³ kPa = 1MPa

Pack size

Thickness (mm)	Width (mm)	Length (mm)	Boards/pack	m ² /pack	Packs/bulk unit	m ² /bulk unit
56	600	1200	42	30.24	8	241.92

Dimension shows overall product thickness including 6mm fibre cement flat sheet. Insulation is 50mm stonewool

XPS INSULATION THAT PUTS YOU ON THE MAP

RAVATHERM™
XPS X

With a world class heritage and UK manufacturing stretching back over 60 years, our high performance extruded polystyrene thermal insulation is at the heart of many of the nation's most recognisable & leading-edge energy efficient residential and commercial buildings.

RIVERSIDE PRIMARY SCHOOL | Perth

One of the first Passivhaus primary schools in Scotland. Due to complete 2023.

FLOOR



ALDER HEY CHILDREN'S HOSPITAL | Liverpool

One of the most sustainable 24-hour hospitals ever built.

ROOF



WESTFIELD | London

High compressive strength ensures reliable rooftop parking at the UK's largest shopping centre.

FLOOR & CAR PARK DECKS



HOWGATE CLOSE | Eakring

A blueprint for the future of affordable, low-carbon, rural housing.

FLOOR, ROOF & WALL



R-WALL | Bude, Cornwall

Innovative ICF build system revolutionising the way we build in the UK.

WALL



THE FORGE | London

High-density apartments, high-performance blue roof. 2020 Housing Design Award

GREEN & BLUE ROOF



BLOOMBERG | London

The world's most sustainable office building. 2018 RIBA Stirling Prize

FLOOR & ROOF



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Technical information

Design Compressive Strengths

The correct grade of Ravatherm XPS X insulation should be selected on the basis of an assessment of the loading by a structural engineer.

The maximum acceptable load on Ravatherm XPS X insulation products is the design load together with a suitable design factor.

(DCS is the load that if applied as a UDL for 50 years then max compression 2%) of Ravatherm XPS X products:

- Ravatherm XPS X 300 SB and Ravatherm XPS X 300 SL: 130 kN/m²
- Ravatherm XPS X 500 SL: 180 kN/m²
- Ravatherm XPS X 700 SL: 250 kN/m²

U-Value Calculations

Ravago Building Solutions UK technical team can run U-Value calculations for your projects. In order to calculate we need the following information:

Floors

- Floor build up from soil to floor finish & floor type i.e. Ground bearing or Suspended
- The total floor area (m²)
- The exposed perimeter (linear metres)
- Target U-Value required
- For basement floor and walls we also need to know the average floor to ceiling height.

Inverted roofs

- Roof build up from internal to external
- Project location i.e. London, Manchester, Glasgow etc.
- Target U-Value required

Solid ground bearing floor										
U-values P/A	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
0.10	155*	225*	240*	250*	260*	260*	275*	275*	275*	275*
0.11	130*	190*	210*	225*	230*	240*	240*	240*	240*	250*
0.12	110*	165*	190*	200*	210*	225*	225*	225*	225*	225*
0.13	90*	150	175*	190*	190*	200	200	200	200	210*
0.15	70*	120*	140*	155*	160*	165*	175*	175*	175*	175*
0.18	40	90*	110*	120*	130*	140*	140*	140*	140*	140*

Required Ravatherm XPS X 300 SB thickness (mm) to meet U-values W/mK - Floor finish 65mm incorporating a 30mm vertical perimeter insulation

*Thickness achieved using a double layer of insulation

U-values in accordance with BRE 443 'Conventions for the calculation of U-values', using calculation methods in BS EN 6946 and BS EN 13370.

A default soil thermal conductivity of 2.0 W/mK should be used, unless otherwise verified and the floor slab should not be included unless adequately defined.

Inverted Roof					
U-value	0.17	0.15	0.14	0.12	0.10
Ravatherm XPS X 300 SL	175	200	215*	250*	300*

Table 1: Required Ravatherm XPS X 300 SL thickness (mm) to meet U-values W/mK using the Ravatherm XPS X MK system

Roof build-up:
 Ballast (aggregate/pavers)
 Ravatherm XPS X MK
 Ravatherm XPS X 300 SL
 Geotextile separation layer (if required)
 Hot melt waterproofing
 Reinforced concrete deck 200mm

Rainwater cooling penalty calculated to BS EN ISO 6946 Annex D4, $p=3\text{mm/day}$

*2 layers of insulation required

Thermal performance

Ravatherm XPS X has exceptionally good thermal conductivity, with low lambda values – the measure of a product's insulating capacity. In an inverted roof construction the product can be used with Ravatherm XPS X MK water flow reducing layer above the insulation to minimise the 'rainwater cooling effect'.

To meet Building Regulations, this effect must be taken into account by using design conductivity (λ_D) rather than declared conductivity (λ_D), and a moisture correction factor as per BS EN ISO 10456:2007 (or ETAG 031) to provide the U-value correction (ΔU_r) for calculated roof U values in accordance with Section 7 and Annex F.4 of BS EN ISO 6946:2017.

Fire

Inverted roofs ballasted with incombustible material, such as aggregate or paving slabs, offer adequate resistance to the external fire rating of Roof(t4) which make the roof unrestricted with respect to proximity to a relevant boundary under Approved Document B of the Building Regulations.

Transport & Delivery Options

At Ravago Building Solutions UK we understand that construction sites do not always need full loads of products on site, that's why we can deliver less than a full load. Please see below our two delivery options.

Standard delivery option

- Deliveries are completed on curtain sided articulated vehicles, flat-bed articulated vehicles are available upon request.
- Flat-bed rigid vehicles available upon request and subject to extra charges.
- FORS Gold available upon request, subject to availability.

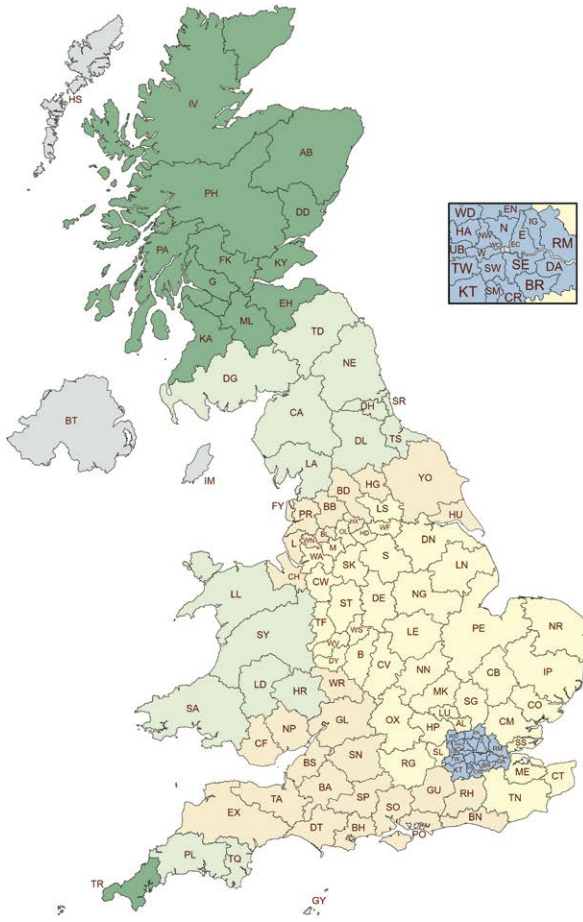
Flexible delivery option

- Deliveries are completed on curtain sided articulated vehicles or other vehicle type that may be available.
- Date or time cannot be specified, deliveries will be completed within 7-10 working days.
- RBS UK Customer Service Team will confirm exact delivery date at least 48 hours prior to delivery.
- If specific delivery date/time is required refer to standard delivery option and charges.

	England & Wales (Mainland only)		Scotland (Mainland only)	
	Standard delivery	Flexible delivery	Standard delivery	Flexible delivery
Lead Time	3-4 working days	within 7 working days	4-5 working days	within 10 working days
Full load (5 bulk units)	Free of charge	Free of charge	Free of charge	Free of charge
3-4 bulk units	Refer to postcode charter	Free of charge	Refer to postcode charter	Free of charge
Less than 3 bulk units*	Refer to postcode charter	£150	Refer to postcode charter	£275

*Minimum sized order we accept for delivery is at least 1 bulk unit.

	Curtain Sided Artic	Flatbed Artic	Rigid Flatbed
Full bulk unit quantity only	No	Yes	Yes
Maximum bulk units per load	5	5	3
Delivery charge for full truck load	No	No	Yes
Timed deliveries possible - Standard	Yes	Yes	PM Only
Timed deliveries possible - Flexible	No	No	No



Delivery Surcharge Postcode Zones

- Zone 1
- Zone 2
- Zone 3
- Zone 4 London
- Zone 5

Postcode Charter

Zone	Standard delivery - No of Bulk Units per Load					Flexible Less than 3 bulk units
	5/Full load	4	3	2	1	
1	No cost	£80.00	£160.00	£240.00	£300.00	£150.00
2	No cost	£110.00	£220.00	£320.00	£360.00	£150.00
3	No cost	£130.00	£260.00	£360.00	£400.00	£150.00
4	No cost	£95.00	£190.00	£290.00	£330.00	£150.00
5	No cost	£220.00	£440.00	£660.00	£880.00	£275.00

Charges based to deliveries to Mainland UK only

Bulk units / inner units offloading

Ravatherm XPS X products are packaged in bulk units as standard.

The bulk unit dimensions are (W) 2.4m x (L) 2.5m x (H) 2.6m to 2.95m
(height varies depending on thickness of product ordered).

Ravatherm XPS X 300SL, 500SL and 700SL can be broken down to 8 pre-wrapped inner units measuring (W) 1.2m x (L) 1.25m x (H) 1.3m to 1.66m

Ravatherm XPS X 300SB can be broken into 4 pre-wrapped inner units measuring (W) 1.2m x (L) 2.5m x (H) 1.3m to 1.6m. As standard loading procedure we will remove the outer wrap on Ravatherm XPS X 300SB product allowing for the pre-wrapped inner units to be offloaded individually.

Orders for quantities other than full bulk units may be loaded as loose packs.

Bulk unit

2.4m x 2.5m x 2.95m



Bulk unit half-height



8 pre-wrapped inner units



Single inner unit

1.2m x 1.25m x 1.66m



Single pack

0.6m x 1.25m x 0.4m



Crane, Long forks or fork extensions required to offload



Standard forklift can offload

Dimensions: W=Width, L=Length, H=Height

Please Note: Height is Maximum and will vary depending on product thickness.



How to offload and unpack bulk units into four or eight convenient units

- unload bulk unit from truck bed with a forklift and fork extensions.
- slit outer wrap horizontally along the mid-height bearers
- lift away top half and set down so you have two half-height bulk units.
- slit outer wrap vertically
- separate into eight pre wrapped inner units – easy to handle with a standard forklift truck.



Collections available from Ravago Building Solutions plant

Collection address:

Ravago Building Solutions UK, Estuary Road, Kings Lynn, Norfolk PE30 2HJ

Conditions for collections will be sent with your order confirmation and a collection reference will be provided which must be presented upon arrival.

Contacts

Orders & General Enquiries

orders.uk.rbs@ravago.com

Customer Service Contacts

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Roofing Products Sales Manager UK & Ireland

Richard Powell	07967 496011	richard.powell@ravago.com
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Technical Contact

Help Desk		technical.uk.rbs@ravago.com
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www.ravagobuildingsolutions.co.uk

 [RavagoBuildingSolutionsUK](https://www.linkedin.com/company/RavagoBuildingSolutionsUK)

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Download our new digital tool: Ravathermapp.com

Partner of



Certifications



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