

Polyfoam™ Roofboard Extra and Slimline Zero Membrane

For inverted and green roofs



Thickness (mm)	Thermal conductivity (W/mK)	Thermal resistance (m²K/W)	Length (mm)	Width (mm)	Compressive strength (kPa)
Polyfoam Roofboard Extra					
50	0.031	1.60	1250	600	300
70	0.031	2.25	1250	600	300
100	0.031	3.20	1250	600	300
150	0.031	4.80	1250	600	300
160	0.031	5.15	1250	600	300
165	0.031	5.30	1250	600	300
180	0.031	5.80	1250	600	300
190	0.031	6.10	1250	600	300
200	0.031	6.45	1250	600	300
215	0.031	6.90	1250	600	300
230	0.031	7.40	1250	600	300
250	0.031	8.05	1250	600	300
280	0.031	9.00	1250	600	300
300	0.031	9.65	1250	600	300

Lap jointed boards

Polyfoam Roofboard Extra is supplied as a Lap Jointed Board with a 15mm overlap. In accordance with ETAG 031 the design thermal conductivity $\lambda_D \geq 50\text{mm} - 0.032\text{W/mK}$, $< 50\text{mm} - 0.033\text{W/mK}$.

Length (mm)	Width (mm)	Area (m² per roll)
Polyfoam Slimline Membrane		
100	1.5	150

Please note: Slimline Zero Membrane requires a 300mm overlap therefore the installed m2 coverage is 120m2.

Performance

The declared thermal conductivity of Polyfoam Roofboard Extra is 0.031W/mK.

The design thermal conductivity including moisture correction factor, of the boards, is 0.032W/mK for thicknesses $\geq 50\text{mm}$. For thicknesses under 50mm 0.033W/mK.

Benefits

- 15mm lap joint
- Excellent thermal performance
- High compressive strength
- Highly resistant to water absorption
- Able to resist repeated freeze/thaw cycles
- Lightweight and easy to install
- Tough and durable, not easily damaged
- Dimensionally stable
- Thermal performance of an inverted roof is improved when used in conjunction with Polyfoam Slimline Zero Membrane

Certification

- British Board of Agrément Certificate
- Environmental Product Declaration
- BES 6001: Responsible Sourcing of Construction Products

Polyfoam™ Roofboard Extra and Slimline Zero Membrane

Description

Polyfoam Roofboard Extra is a rigid but lightweight extruded polystyrene (XPS) board with high compressive strength and is used in conjunction with Polyfoam Slimline Zero Membrane as a Polyfoam Inverted Roof System.

Application

Polyfoam Roofboard Extra is used for the thermal insulation of a wide variety of flat

roofs including:

- in an inverted roof below ballast or paving slabs
- in a green/garden roof

Durability

The continuous service temperature limit of Polyfoam Roofboard Extra is up to +70°C.

Environmental

The BRE have approved and issued Environmental Product Declarations (EPDs) for the Polyfoam range of products in accordance with EN 15804:2012+A1:2013.

Polyfoam Roofboard Extra represents no known threat to the environment and has Zero

Ozone Depletion Potential and a low Global Warming Potential.

Polyfoam Roofboard Extra is non bio-degradable and 100% recyclable.

Responsible Sourcing

Polyfoam XPS Limited complies with requirements of BES 6001:issue 3.1, Polyfoam XPS Limited have achieved a performance rating of 'Pass' for the Polyfoam product range.

Vapour resistivity

The water vapour resistivity of Polyfoam Roofboard Extra is 705 MNs/g.m when tested in accordance with BS EN 12086.

Compressive strength

Polyfoam Roofboard Extra is highly resistant to compression and withstands both occasional and long term static loads. The high compressive strength and rigidity of the product allows a range of ballast material including gravel, soil and concrete slabs to be used as part of the construction. Load bearing construction elements should be designed to adequately support the combination of imposed and dead loads without creating excessive deflection.

Moisture absorption

Polyfoam Roofboard Extra has a moisture absorption of 0.9% by volume when tested in accordance with EN 12087.

Handling and storage

Polyfoam Roofboard Extra is lightweight and easy to handle and install. Polyfoam Roofboard Extra is supplied in four sided packaging designed to be easily recognised and is labelled with identifying product and manufacturing data. Ensure the product is not stored close to open flames or other ignition sources and avoid volatile organic compounds and chemicals such as solvents. Polyfoam Roofboard Extra should not be left exposed to prolonged sunlight as this will result in surface degradation. When outside storage for extended periods is required cover the products with opaque/light coloured sheeting.

Standards

Polyfoam Roofboard Extra is manufactured in accordance with BS EN 13164, ISO 50001 Energy Management Systems, ISO 45001 Occupational Health and Safety Management Systems, ISO 14001 Environmental Management Systems, and ISO 9001 Quality Management Systems.

Polyfoam™ Roofboard Extra and Slimline Zero Membrane

Polyfoam Slimline Zero Membrane is a high performance, thermally bonded tri-laminate of polypropylene; spunbonded (outer layers) and microporous (inner layer).

Property	Test method	Unit	Data
Weight	-	g/m ²	95
Tensile strength in MD	EN 12311 - 1	N/5 cm	185
Tensile strength in CD	EN 12311 - 1	N/5 cm	130
Nail tear resistance 20cm folded MD/CD	"EN12310 0 1		
prEN 13859"	"N/20 cm		
N/20 cm"	"55		
65"			
Water resistance	EN 20811	m of water head	1.5
Water vapour transmission (23oC/85% humidity	Lyssy	g/m ^{2.d}	1200
UV stability under constant exposure	prEN 1297	-	up to 4 months

Polyfoam Inverted Roof System	
U-values (W/m ² K)	*Polyfoam Roofboard Extra (mm)
0.20	150
0.19	160
0.18	165
0.17	180
0.16	190
0.15	200
0.14	215
0.13	230
0.12	250
0.11	280
0.10	300
0.09	340 (180+160)
0.08	390 (230+160)

* Calculation Method: BS EN ISO 6946 incorporating Design Lambda value
200mm Reinforced Concrete Deck (2% reinforcement)
7.5mm Hot Melt Waterproofing Layer
Slimline Zero Membrane Factor f.x
Rainfall - Met Office Statistics, UK Average 1981 - 2010

2.50 W/mK
R-value 0.020 m²K/W
0.001
3.00 mm/day