



Polyfoam Roofboard

Description

Polyfoam Roofboard is a high performance, 100% ozone friendly, extruded polystyrene, rigid board insulation. It is lightweight, yet has excellent structural strength and long term effectiveness.

Polyfoam Roofboard is available in three grades:

- **Standard** – Light to occasional maintenance traffic loads
- **Extra** – Consistent loading and plant loading, pedestrian traffic loads.
- **Super** – Very high loading, car parking and heavy traffic loads

Polyfoam Roofboard is supplied with interlocking rebated edges. Polyfoam Foil Faced Roofboard is supplied for single ply membrane roofs where a separation layer is required.

Application

Polyfoam Roofboard is used for the thermal insulation of flat roofs.

Polyfoam Roofboard can be used:

- in a warm roof construction below single ply membranes – note that Foil Faced Roofboard should be used below PVC membranes
- in a protected membrane roof below ballast or paving slabs⁽¹⁾
- as the insulation layer in a green/garden roof
- under concrete for a roof top car park

(1) See also the separate Knauf Insulation datasheet on the Polyfoam Slimline membrane (Ref: PD58306). When used in conjunction with the Polyfoam Slimline membrane as part of the Polyfoam Slimline system, this solution offers industry leading thermal performance and weight reduction in protected membrane roofing systems.

Performance

Thermal

The thermal conductivity of Polyfoam Roofboard varies between 0.029 W/mK and 0.036 W/mK - see Product Data table overleaf.

Benefits

- Combines excellent thermal performance with 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
- As part of the Polyfoam Slimline System:
 - Improves the thermal performance of protected membrane flat roofs
 - Enables thinner insulation and less ballast to be used with no loss of performance
 - Produces a thermally efficient and lightweight roof



Product Data

Thickness	Thermal conductivity	Thermal resistance	Nominal density	Minimum compressive strength	Design loads ¹		Length	Width
(mm)	(W/mK)	(m ² K/W)	(kg/m ³)	(KPa)	Long term static load (KPa)	Occasional loading (KPa)	(mm)	(mm)
Polyfoam Roofboard Standard								
75	0.029	2.55	30	200	40	66	1250	600
60	0.029	2.05	30	200	40	66	1250	600
50	0.029	1.70	30	200	40	66	1250	600
35	0.029	1.20	30	200	40	66	1250	600
Polyfoam Foil Faced Roofboard								
120	0.029	4.10	30	200	40	66	1250	600
100	0.031	3.20	30	200	40	66	1250	600
75	0.029	2.55	30	200	40	66	1250	600
60	0.029	2.05	30	200	40	66	1250	600
50	0.029	1.70	30	200	40	66	1250	600
35	0.029	1.20	30	200	40	66	1250	600
Polyfoam Roofboard Extra								
140	0.031	4.50	38	350	70	116	1250	600
130	0.031	4.15	38	350	70	116	1250	600
120	0.029	4.10	38	350	70	116	1250	600
110	0.029	3.75	38	350	70	116	1250	600
75	0.029	2.55	38	350	70	116	1250	600
60	0.029	2.05	38	350	70	116	1250	600
50	0.029	1.70	38	350	70	116	1250	600
Polyfoam Roofboard Super								
100	0.036	2.75	42	500	100	166	1250	600
75	0.035	2.10	42	500	100	166	1250	600
50	0.034	1.45	42	500	100	166	1250	600

(1) Design loads by calculated methods. All dimensions are nominal.

Standards

Polyfoam Roofboard is manufactured in accordance with BSI Quality Assurance Standard BS EN ISO 9001: 2000.

Certification

Polyfoam Roofboard Standard, Extra and Super are certified by BBA Certificate 90/2424.

Durability

The continuous service temperature limits of Polyfoam Roofboard are -50 to +75° C.

Environmental

Polyfoam Roofboard is free from CFCs, HCFCs and any other material with ozone depletion potential in its manufacture and content and represents no known threat to the environment. Polyfoam Roofboard is non bio-degradable.

Polyfoam Roofboard is 100% recyclable.

Compression resistance

Polyfoam Roofboard is highly resistant to compression and withstands both occasional and long term static loads. A factor of safety for design loads of 3 (5 for long term static loads) is applied to the compressive strength of the product as outlined in the product data tables above.

Vapour Resistivity

Polyfoam Roofboard Standard has a vapour resistivity of 480 MNs/gm. Polyfoam Roofboard Extra and Super have a water vapour resistivity of 600 MNs/gm.

Moisture absorption

Polyfoam Roofboard has a moisture absorption of 0.3% by volume.

Moisture resistance

Polyfoam Roofboard can be used above the waterproofing layer and thus exposed to rainwater. The board is resistant to moisture absorption and can be laid in standing water or up against wet concrete with negligible impact on the performance of the product.

Handling and storage

The boards are easy to handle and non-irritant. No special protective clothing is required when installing them.

Polyfoam Roofboard is supplied in polythene packs, labelled with identifying product and manufacturing data.

Ensure the boards are not stored close to open flame or other ignition source, also avoid volatile compounds and chemicals such as solvents.

Polyfoam products should not be left exposed to prolonged sunlight as this will result in surface degradation. Where outside storage for extended periods is required cover with opaque/light coloured sheeting.

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Ref: PD89407

