

Polyboard - Environment



Extruded Rigid Polystyrene Foam Board The CFC, HFC and HCFC - Free Insulation

DESCRIPTION

Polyboard-Environment is a high performance, extruded polystyrene, rigid board insulation. Which use carbone dioxide (CO₂) as the blowing agent instead of HCFCs, no impact on ozone layer & no contribution to global warming. It is lightweight, has excellent structural strength and long term effectiveness.

Polyboard-Environment is available in different grades to suit the intended end use of the finished roof:

Standard - Light to occasional maintenance traffic loading

Higher - Consistent loading and plant loading, pedestrian traffic loads

Super - Very high loading, car parking and heavy traffic loads

Polyboard-Environment is supplied with different edge designs (square edge & shiplaped)

APPLICATION

Polyboard-Environment is used for the thermal insulation of flat roofs. If a lower strength insulation is used the potential uses of the roof space are limited and potential future use is also difficult. Increasingly, the optimum roof insulation has to:

- superior compressive strength
- good thermal insulation value
- be structurally stable in the long term minimal water absorption
- lightweight
- easy to install

For protected membrane roofs is simple the waterproofing membrane is laid direct to roof deck & thermal insulation which consist the combination of strength and very low moisture absorption.

Protected membrane roofs can apply to the following:

- Schools, Hospitals and other public buildings
- Offices
- Retail developments
- Industrial developments
- Green / garden roofs
- Roof terraces and patio areas
- Roof top car parks

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PERFORMANCE

Compression Resistance

All materials are compressed under load. If the roof is going to be transformed from a limited access waste of space into an interesting and useful space the insulation must be capable of accommodating applied loads. Polyboard-Environment is highly resistant to compression and withstands both occasional and long term static loads.

Moisture Resistance

Polyboard-Environment is 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 minimal impact on the performance of the product.

Thermal Insulation

Polyboard-Environment is a high performance insulation, with aged quoted thermal performance values.

Fire Performance

When Polyboard-Environment is installed in a roof construction it will not contribute to the development stages of a fire.

Handling and Storage

Polyboard-Environment is supplied in polythene packs, labelled with identifying product. The boards are easy to handle and non-irritant, no special protective clothing is required to install them. Polyboard-Environment 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. Ensure the boards are not stored close to open flame or other ignition source, also avoiding volatile compounds and chemicals such as solvents.

Product Data

Polyboard-Environment Insulation Physical Properties

Property	Polyboard Standard	Polyboard Higher	Polyboard Super
Thermal Conductivity (K Values) w/mk	0.0334	0.0334	0.0334
Compressive Strength (at 50mm thickness)	≥ 250 kPa	≥ 300 kPa	≥ 350 kPa
Tensile Strength	minimum 300 kPa	minimum 330 kPa	minimum 500 kPa
Water Absorption (% by Volume)	$\leq 1\%$	$\leq 1\%$	$\leq 1\%$
Combustion Performance	B2	B2	B2
Standard Size			
Length (mm)	1200 - 2400		
Width (mm)	600 - 900		
Thickness (mm)	20 - 80		
Applications			
Concrete Flat Roofs	•		
Metal Roofs	•		
Exterior Walls	•		
Cavity Walls	•		
Cold Storage Floors		•	•
Cold Storage Walls	•		
Cold Storage Ceilings	•		
Ice Rinks		•	
Parking Decks		•	•
Airport Runways			•
Sandwich Panels	•		

Temperature limit of 50°C to +75°C
Tolerance $\pm 1-2$ mm