

Technical Information

Permarock EPS Premium Insulation



Product Description

Field of Application:

Permarock EPS Premium Insulation forms part of the Permarock EPS Premium External Wall Insulation System – a thermal insulation system for application to the external walls of new or existing buildings of brickwork, blockwork, dense or no-fines concrete, timber frame or steel frame construction in the residential and non-residential sectors.

The Permarock EPS Premium System can be used on buildings up to 18m in height.

Permarock EPS Premium Insulation is a low lambda, lightweight, closed-cell expanded polystyrene (EPS) material containing fine graphite particles which impart a silvery grey colour to the material and give a significant improvement in the thermal performance when compared with standard white EPS insulation. Permarock EPS Premium insulation is Flame Retardant Additive (FRA) grade.

Standards & Approvals

Permarock EPS Premium Insulation is manufactured and supplied in accordance with EN 13163 under a management system certified to BS EN 14001:20018 (Environmental Management Systems: Requirements).

Advantages:

- Lightweight / low density
- Graphitised EPS, provides an improved thermal performance
- Easy to handle
- Can be rasped / sanded for flat, even surfaces
- Low water absorption

Environmental:

Zero ozone depletion potential (zODP) and low Global Warming Potential (low GWP), Green Guide A+

Handling & Storage:

Store in original packing in a location free from any ignition hazard such as open flames, cutting and welding torches, high surface temperatures.

Technical Data:	
Fire Behaviour:	B-s1,d0 /B-s2,d0 (EN 13501-1) *dependent on finish used
Standard dimensions (mm):	1200 x 600
Standard thicknesses (mm):	20 - 300 in 10mm increments
Density:	ca. 16kg/m ³
Declared thermal conductivity:	0.030 W/mK (EN 13163)
Water vapour permeability:	0.009-0.020 mg/(Pa.h.m)

Application

Cutting:

1. Mark position of the desired cut accurately on the board face
2. Use a proprietary insulation saw, fine-toothed saw, or proprietary hot wire or hot knife cutting tools carefully cut along the marked line.

Adhesive Bonding:

Permarock EPS Premium Insulation boards can be attached to walls of brickwork, blockwork, dense or no-fines concrete using a combination of Permarock Adhesive and appropriate Permarock mechanical fixings.

On flat, smooth mineral substrates, such as cement-bonded particle-board, insulation boards should be bonded using Permarock Lamella Adhesive and mechanically fixed using appropriate Permarock mechanical fixings. Do not use solvent adhesives.

On suitably sound, stable substrates with adequate tensile strength the insulation can be adhesively bonded without supplementary mechanical fixing. This method of attachment should only be employed if the adhesive bond strength to the substrate is first determined by representative in-situ testing.

Mechanical Fixing:

Permarock EPS Premium Insulation boards should be mechanically fixed to brickwork, blockwork and dense and no-fines concrete with suitable ETA-approved insulation anchors. Mechanical fixing should only be used in combination with adhesive bonding; refer to fixing ETA.

For attachment to sheathing boards over steel frame or timber frame constructions, the use of Polypropylene tube washers with corrosion-resistant coated screws is recommended.

Services & Ancillaries:

Whenever attaching external services or ancillaries to the wall retrospectively after insulating and rendering the fixings must be adequate to support the attachment while penetrating through the insulation into the loadbearing wall structure behind.

Lightweight items can be fixed to the insulation via the use of Permarock Spiral Anchors which are inserted into the insulation (minimum 70 mm insulation thickness required) at the required location before the renders are applied.

Protection:

EPS boards that have been applied to wall surfaces should be protected/shielded from direct sunlight to avoid excessive thermal gains. Boards that have been exposed to prolonged UV may exhibit deterioration of the outer surface layer (e.g. surface discolouration, surface crazing, friability): All such damage must be removed by rasping/sanding back to sound unaffected material: The use of vacuum extraction when rasping is recommended.

Note: Reducing the thickness of the insulation layer by rasping/sanding will result in a reduction in the thermal resistance of the insulation layer.

Advice

Further details:

See material safety data sheet

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