

Technical Information

Permarock Mineral Fibre HD Insulation



Product Description

Field of Application:

Permarock Mineral Fibre HD (High Density) insulation is a mono-density, non-combustible thermal insulation material formed into rigid batts with partial vertical fibre orientation, used as the insulation layer within Permarock Mineral Fibre external wall insulation systems - thermal insulation systems for application to the external walls of new or existing lowrise or high-rise buildings of brickwork, blockwork, dense or no-fines concrete, timber frame or steel frame construction in the residential and non-residential sectors.

Standards & Approvals

Permarock Mineral Fibre HD insulation boards are manufactured and supplied in accordance with BS EN 13162: 2012 under a Quality Management System which complies with the requirements of BS EN ISO 9001: 2008 (Quality management systems: Requirements) and BSEN ISO 14001: 2004 (Environmental Management Systems: Requirements).

Biological:

Permarock Mineral Fibre HD insulation offers no sustenance to vermin and does not encourage the growth of fungi, moulds or bacteria.

Advantages:

- Non-combustible - Class A1 (BS EN 13501-1)
- Dimensionally stable
- Stable thermal performance using entrapped air - will not deteriorate
- Superior acoustic performance compared with rigid foam insulants
- Low embodied energy
- High water vapour permeability - allows walls to 'breathe'

Environmental:

Zero ozone depletion potential (zODP) and zero Global Warming Potential (GWP).

Handling & Storage:

Permarock Mineral Fibre HD Insulation is supplied in packs or pallets. Insulation boards should be storey indoors or under a waterproof covering. Boards should be handled with care.

Technical Data:	
Fire Behaviour:	A1
Standard dimensions (mm):	1200 x 600
Standard thicknesses (mm):	30 - 200 in 10mm increments
Thermal conductivity:	30-40mm: 0.036 W/mK >40mm: 0.039 W/mK
Reaction to fire:	A2-s1,d0 (EN 13501-1) <i>dependent on finish used</i>
Tensile strength:	TR10 (BS EN 13162:2012 + A1:2015)
Colour:	Yellow-green

Application

Cutting:

1. Mark position of the desired cut accurately on the board face
2. Use an insulation cutting saw or knife to carefully cut along the marked line through the full thickness of the insulation.
3. Ensure accurate trimming to achieve close joints and continuity of insulation when installed.

Adhesive Bonding:

Adhesive can be applied to either face of the insulation boards.

Permarock Adhesive should be used when bonding to brickwork, blockwork and dense or no-fines concrete and other uneven surfaces.

For bonding to smooth mineral substrates, such as cementbonded particle boards or cellulose fibre reinforced cement boards, use Permarock Lamella Adhesive.

Do not use solvent-based adhesives.

Refer to Permarock's installation instructions for guidance on the application of adhesives and renders.

Note: In addition to adhesive bonding boards must also be mechanically fixed.

Mechanical Fixing:

In addition to adhesive bonding, Permarock Mineral Fibre HD Insulation boards should also be mechanically fixed using suitable Permarock approved insulation anchors.

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

For attachment to solid substrates, including brickwork, blockwork, dense and no-fines concrete, etc., plastic insulation anchors, as defined in ETAG014, should be used. The length of the fixing should be appropriate to the insulation thickness, adhesive layer thickness, the thickness of any existing render layers on the substrate, and the

required anchorage depth into the load-bearing substrate.

When selecting the fixing type, consideration should be given both to the pull-out resistance of the fixing in the substrate, and the pull-through strength of the insulation/ fixing combination. Providing additional fixings through the reinforcement layer of the render system will assist in achieving a higher level of resistance to pull-through/pullover.

Services & Ancillaries:

Whenever attaching external services or ancillaries to the wall retrospectively (i.e. after insulating and rendering) the fixings must be adequate to support the attachment while penetrating through the insulation into the load-bearing wall structure behind. Direct loads should not be carried by the insulation or render materials.

Advice

Further details:

See material safety data sheet

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