

POLYBOARD® EPS

Low-Density Expanded Polystyrene Board

Product Description

POLYBOARD® EPS is a low-density expanded polystyrene insulation and filler board. It is used to provide thermal insulation in non-load-bearing applications, to fill voids in structures with a lightweight material, and to protect waterproofing layers against mechanical damage.

It complies with EN 13163. For external thermal insulation composite systems (ETICS), which require higher compressive and tensile strength, THERMOMAX® EPS must be used.

Fields of Application

- Thermal insulation of non-load-bearing elements
- Insulation of loft spaces, suspended ceilings and voids between floors
- Filling structural voids and dead spaces with a lightweight material
- As permanent formwork and filler in foundations and retaining walls
- As a protection layer over waterproofing before backfilling
- As cut board in packaging, transport and formwork applications

Advantages

- Very lightweight; adds no load to the structure in filling applications
- Easy to cut and shape; adapts to irregular voids
- Low water absorption; unaffected by moisture, does not rot or grow mould
- Protects the waterproofing layer against mechanical damage during backfilling
- Recyclable; no gases harmful to people or the environment are used in its production

Technical Properties

General Information	
Material composition	Expanded polystyrene (EPS)
Appearance	White, cut board
Product type	EPS 10
Average density (approx.)	10 kg/m ³
Board size	50 × 100 cm
Board thickness	2 – 3 – 4 – 5 – 6 – 8 – 10 cm
Thermal Properties	
Thermal conductivity (λ_D – EN 12667)	0.042 W/mK
Service temperature	–50°C / +75°C
Dimensional Tolerances and Stability	
Length tolerance (EN 822)	± 2 mm (L2)
Width tolerance (EN 822)	± 2 mm (W2)

Thickness tolerance (EN 823)	± 1 mm (T2)
Squareness tolerance (EN 824)	± 2 mm/m (S2)
Flatness tolerance (EN 825)	5 mm (P4)
Safety Information	
Reaction to fire class (EN 13501-1)	Class E
Hazardous substances	Refer to SDS

The technical values stated were obtained at an ambient temperature of +23°C and 50% relative humidity.

Application Instructions

Surface Preparation

The surface on which the boards are laid must be sound, dry, clean and free of dust. Sharp projections, nails, wire and building debris must be removed from the surface. Where the boards are laid over waterproofing, check that the waterproofing layer is fully cured and free of defects.

Cutting and Installation

The boards are cut with a sharp knife, a hand saw or a hot-wire cutter. Ventilate the area when cutting with a hot wire. The boards are laid tightly together without gaps; in multi-layer applications the joints must be staggered. Gaps wider than 2 mm must be closed with pieces cut from the same board, as such gaps create thermal bridges.

Void Filling

For void filling, the boards are cut to the geometry of the void and fitted tightly in place. Where they are used as permanent formwork or filler before concreting, the boards must be secured against the uplift force of the fresh concrete. Take care that the vibrator does not come into direct contact with the boards during concreting.

Use as a Protection Layer over Waterproofing

Once the waterproofing layer is fully cured, the boards are laid against it without gaps. Where bonding is required, use only a solvent-free, cold-applied bitumen emulsion or a cement-based adhesive suitable for polystyrene; solvent-containing products and hot bitumen dissolve the board. Backfilling must follow without delay after the boards are placed, in layers and in a way that does not displace them. The backfill material must be free of sharp stones and debris.

Storage Conditions and Shelf Life

Store in the original, unopened packaging on a level base, in a dry, cool place protected from direct sunlight and sources of flame. If stored in the open on site, the boards must be covered. When stored correctly, the shelf life is 24 months from the date of production.

Safety Precautions

Keep away from heat and naked flames. Welding, cutting and similar hot work must be avoided during storage and application. Ventilate areas where hot-wire cutting is carried out. Protective goggles and a mask must be worn when cutting the boards. The product must not be brought into contact with materials containing organic solvents. Store out of reach of children. For further information, refer to the Safety Data Sheet.

Liability

Our company is responsible only for the quality of the product. Any use of the product outside the scope of the written technical recommendations, including incorrect application or use under unsuitable conditions, is entirely the responsibility of the user. For further technical information, please refer to the product catalogue or contact our representatives.

Packaging

Shrink-wrapped packs of 50 × 100 cm boards, the number of boards per pack varying with thickness

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