

Shieldfoam EPS

Expanded Polystyrene Sheets



MICSHIELD®

Description

Shieldfoam EPS is a plastic foam material made from solid polystyrene beads, forming a closed-cell rigid structure with styrene creating the cellular framework and pentane serving as the blowing agent.

Uses

- Provides thermal insulation in region of high temperatures (80°C or above).
- Used to create voids in concrete structures to reduce weight without losing strength.
- Used as backfill behind retaining walls to reduce soil pressure.
- Applied in internal and external wall insulation systems (ETICS).
- Helps reduce noise transmission in walls and floors.
- Commonly used in packaging and storage applications

Characteristics / Advantages

- Available in wide range of thicknesses.
- Excellent thermal insulation with low thermal conductivity.
- Long-term thermal insulation performance.
- Extremely lightweight and cushioning.
- Low moisture absorption.
- Chemical resistance.

Standard Compliance

ASTM C578, Type II.

Technical Support

Refer to contacting technical information, method statement or technical support team for any inquiry.

Typical Properties

Color	White
Density (ASTM C578, C303)	20 kg/cm ³
R-Value (ASTM C578, ASTM C518) Per 1-inch thickness @ 23.9°C .	4
Compressive Strength @1% Deformation (Max) (ASTM C578 – D1621)	31 kPa
Compressive Strength @5% Deformation (Max) (ASTM C578 – D1621)	68 kPa
Compressive Strength @ 10% Deformation (Min) (ASTM C578 – D1621)	103 kPa
Flexural Strength (Min) (ASTM C578 – C203)	240 KPa
Water Absorption (% by volume)(ASTM C578 – C272)	3
Vapor Permeability max. at 23°C (AS 2498.5)	580 µg/m ² .s
Coefficient of Thermal Expansion (ASTM C578 – D696)	6.3 x 10 ⁻⁵ m/m°K
Flame Propagation – Eight Value (min.) (AS 2122.1)	19%

Shelf Life and Storage

Shieldfoam EPS has an unlimited shelf life when stored in cool and dry conditions, protected from direct sunlight, heat, and moisture.

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