// INSULATION · EXTRUDED POLYSTYRENE

XPS Foam Board

Closed-cell extruded polystyrene thermal insulation board

DOCUMENT	REVISION	ISSUE DATE	SUPPLIED BY
PS-TDS-XPS-01	Rev 01	04 Nov 2026	Green Insulation (Pvt) Ltd

Description

XPS Foam Board is a closed-cell extruded polystyrene insulation board manufactured by Green Insulation Private Limited, a sister concern of Petroseal Enterprises, and supplied nationwide through Petroseal.

Its closed-cell structure gives low thermal conductivity, very low water absorption and high compressive strength. That makes it suitable for concrete roofs (including inverted roofs above the waterproofing), walls, basements and cold rooms in Pakistan's high-temperature regions.

Typical uses

- Concrete roofs, conventional and inverted
- Wall insulation
- Basements and under-floor insulation
- Cold storage and industrial buildings

Features & benefits

- Closed-cell structure
- Low thermal conductivity, which does not change with prolonged use
- Low moisture absorption
- High compressive strength in three grades
- Resistant to bacteria and micro-organism growth
- Lightweight and easy to cut on site

Product data

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE
Board size	EN 822	ft (mm)	4 × 8 (1220 × 2440)
Thickness	EN 823	in (mm)	1" (25) / 2" (50) / 3" (75) / 4" (100)
Compressive strength at 10% deformation	EN 826 / ASTM D1621	kPa	250 / 350 / 500 (by grade)
Density	ASTM D1622	kg/m³	30 – 45 (by grade)
Thermal conductivity λ (aged, declared)	EN 12667	W/m·K	0.033 – 0.036
Thermal resistance R at 50 mm	Calculated	m²·K/W	1.4 – 1.5
Water absorption by total immersion	ASTM C272	% v/v	≤ 0.3
Water vapour permeance (25.4 mm)	ASTM E96	ng/Pa·s·m²	63
Dimensional stability	ASTM D2126	%	≤ 2
Flexural strength	ASTM C203	kPa	345 – 414
Maximum service temperature	—	°C	70
Reaction to fire	EN 13501-1	Class	E

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE
Flammability	DIN 4102-1	Class	B2

Application guidance

- Lay boards on a clean, level substrate with tight-butted joints, staggered in a brick pattern.
- On roofs, typical thickness is 2–3". Pair with PetroGrip waterproofing: below the boards for inverted roofs, or above with a screed and separation layer for conventional build-ups.
- Choose the compressive grade for the imposed load: 250 kPa for light roofs, 350 / 500 kPa for trafficked podiums and under-floor use.
- Cover with a separation layer and ballast or screed. Do not leave boards exposed to sunlight.
- Cut with a fine-tooth saw or hot wire. Do not leave gaps at upstands.

Limitations

- Polystyrene is combustible. Protect it with a non-combustible covering as the building fire design requires.
- Not resistant to solvents, bituminous solvents or coal-tar products. Do not torch membranes directly onto XPS.
- Degrades under prolonged UV exposure.

Packaging & supply

- Boards supplied in shrink-wrapped bundles by thickness

Storage & shelf life

- Store flat on a level surface, shaded from sun and away from heat and ignition sources.
- Weigh bundles down outdoors to prevent wind lift.

Health & safety

- Not hazardous to handle. Wear a dust mask when cutting in confined spaces.
- Keep away from open flame and hot works.
- Dispose of offcuts, packaging and residues in accordance with local regulations.

Petroseal Enterprises · Suite No. 3, 2nd Floor, Commercial Market, Sector Y, DHA Phase 3, Lahore, Pakistan
Tel 0321 8489737 · 0317 4058560 · info@petrosealenterprises.com · petrosealenterprises.com