

Product Information Bulletin

EnerSpan™ M-30 Insulation Board

EnerSpan™ M-30 insulation is a moulded expanded polystyrene (EPS) insulation with a silver-gray colour that meets or exceeds CAN/ULC-S701, **Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering**. **EnerSpan M-30** insulation is manufactured using Neopor® provided by BASF, a graphite-enhanced raw material that reduces radiation heat transfer resulting in higher thermal resistance (R-value) compared to standard CAN/ULC-S701, Type 3 EPS insulation (see material properties table).



The closed cell structure of **EnerSpan M-30** insulation contains only air so the R-value will not deteriorate over time. This is why Plasti-Fab is able to offer a 100% R-value warranty (see www.plastifab.com for details of **EnerSpan** insulation warranty). In addition, the closed cell structure of **EnerSpan M-30** insulation resists water absorption so the high R-value is retained even after direct exposure to water.

Material Property	Test Method	Units	Values
Compressive Resistance <i>Minimum @ 10% Deformation</i>	ASTM D1621	kPa	210
		(psi)	(30)
Compressive Modulus <i>Minimum</i>		kPa	7,500
		(psi)	(1,088)
Thermal Resistance <i>Minimum per 25 mm (1 inch)</i>	ASTM C518	m ² ·°C/W (ft ² ·h·°F/BTU)	0.80 (4.6)
Flexural Strength <i>Minimum</i>	ASTM C203	kPa (psi)	345 (50)
Water Vapour Permeance <i>Maximum</i>	ASTM E96	ng/(Pa·s·m ²) (Perms)	130 (2.26)
Dimensional Stability <i>Maximum (7 Days @ 70 ± 2 °C)</i>	ASTM D2126	% Linear Change	1.5
Water Absorption <i>Maximum</i>	ASTM D2842	% By volume	2.0
Limiting Oxygen Index <i>Minimum</i>	ASTM D2863	%	24
Standard Dimensions			
Width	Length	Thickness	
610 mm (2 ft.)	2440 mm (8 ft.)	38, 51 or 76 mm (1 ½, 2 or 3 in.)	
All four edges of boards are shiplapped to provide continuous insulation coverage.			

EnerSpan™ M-30 Insulation Specification: The following specification is basic and must be adapted to suit the requirements of individual projects. It is written in accordance with the Construction Specifications Canada three-part section format and should be included as a separate section under Division 7 – THERMAL AND MOISTURE PROTECTION.

Part 1 – General

1.01 Related Documents: Drawings and general provisions of the contract, including general and supplementary conditions and Division-1 Specification Sections, apply to this Section.

1.02 Submittals:

- A. Manufacturer's product literature, including specified physical properties.
- B. Installation instructions.
- C. Confirmation that product complies with specification requirements and is compatible with the roofing membranes and adhesives.

1.03 Quality Assurance: Provide proof of compliance with quality requirements in the form of an Evaluation Listing in the Canadian Construction Materials Centre (CCMC) Registry of Product Evaluations and/or third party certification of product quality by an accredited body.

1.04 Product Handling

- A. Protect insulation from physical damage. Provide adequate protection of materials and work of this trade from damage by weather, traffic and other causes.
- B. Protect work of other trades from damage resulting from work of this trade. Make good such damage at own expense to satisfaction of owner's representative.
- C. Comply with manufacturer's recommendations for handling, storage and protection. Handle boards carefully so corners are not broken off or boards otherwise damaged.

1.05 Warranty: Where required, provide written warranty that the long term thermal resistance of the insulation will not vary from its published thermal resistance based upon installation in accordance with manufacturer's recommendations.

Part 2 – Products

Materials

2.01 Insulation: **EnerSpan M-30** insulation manufactured by Plasti-Fab conforming to CAN/ULC-S701, Type 2; thermal resistance - RSI 0.78 per 25 mm (R-4.53 per inch) of thickness; thickness as shown on the drawings (or specify).

2.02 Adhesives: Use adhesive compatible with expanded polystyrene (EPS) insulation.

Part 3 – Execution

3.01 Inspection: Sweep areas clean to receive insulation board prior to commencing installation. Check that concrete surfaces are level, straight and clean and that fins or projections left after stripping of concrete forms have been removed.

3.02 Application: Workmanship shall be the best standard practice for this type of work.

3.03 Clean Up: Clean up and remove from the site all debris and surplus materials from the work of this trade promptly as the work proceeds and on completion.