

Product Information Bulletin

EnerSpan® M-24 Insulation Board

EnerSpan® M-24 insulation is a rigid, closed cell, silver-gray insulation that meets or exceeds requirements for expanded polystyrene (EPS) insulation manufactured to CAN/ULC-S701¹. **EnerSpan M-24** insulation is manufactured using Neopor® F5300 GPS Plus, a graphite-enhanced expandable polystyrene (GPS) raw material provided by BASF.



The graphite within the cellular structure of **EnerSpan M-24** insulation reduces radiation heat transfer and results in an enhanced thermal resistance² compared to standard white EPS insulation.

Material Property	ASTM Test Method	Units	Values
Compressive Resistance <i>Minimum @ 10% Deformation</i>	D1621	kPa (psi)	110 (16)
Compressive Modulus <i>Minimum</i>		kPa (psi)	4,000 (580)
Thermal Resistance <i>Minimum per 25 mm (1 inch)</i>	C518	m ² ·°C/W (ft ² ·h·°F/BTU)	0.82 (4.7)
Flexural Strength <i>Minimum</i>	C203	kPa (psi)	240 (35)
Water Vapour Permeance <i>Maximum</i>	E96	ng/(Pa·s·m ²) (Perms)	200 (3.5)
Dimensional Stability <i>Maximum (7 Days @ 70 ± 2 °C)</i>	D2126	% Linear Change	1.5
Water Absorption <i>Maximum</i>	D2842	% By volume	4.0
Limiting Oxygen Index <i>Minimum</i>	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-24** material properties as per CAN/ULC-S701, **Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering**, are third party certified under a quality listing program administered by Intertek. Intertek CCRR-1033 confirms compliance with the National Building Code of Canada 2010 and 2015.
- See www.plastifab.com for details of **EnerSpan** insulation 100% R-value warranty offered by Plasti-Fab.

EnerSpan[®] M-24 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-24** 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.