

# Styrobar plus®

## Laminated Rigid Insulation Solutions

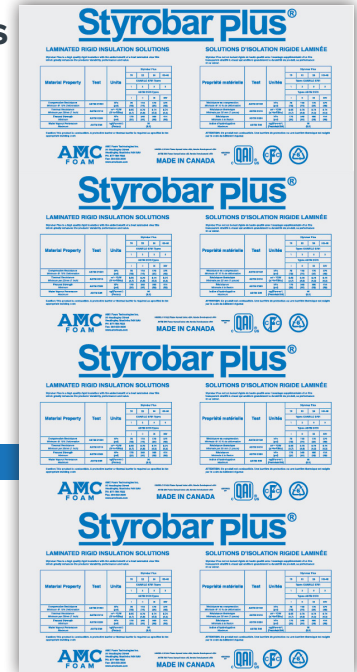
Styrobar Plus is a rigid insulation product made from closed cell expanded polystyrene (EPS), laminated with a clear or reflective polypropylene film on both sides, which greatly increases the flexural strength, job site durability and moisture barrier properties of Styrobar products.

**Styrobar Plus 16** is suitable for exterior and interior above-grade sheathing applications, including roofing applications.

**Styrobar Plus 22** is suitable for exterior and interior sheathing above-grade, and below-grade applications in Canada such as; under-slab, grade beam, perimeter, radiant floor heating, frost shield protection and back fill.

**Styrobar Plus 28** is suitable for all above-grade and below-grade applications in Canada and the United States. These would include the same below-grade applications noted for Styrobar Plus 22.

**Styrobar Plus HS-40** is suitable for geotechnical and other below-grade applications where high compressive strengths and high thermal values are needed.



### Product Features



Stable long term thermal resistance (LTTR)



Environmentally responsible



Cost-effective insulation



Water resistant



Durable



Low Permeance

### Environmental & Sustainability

- Styrobar Plus products are produced without the use of chlorofluorocarbon (CFCs), hydrochlorofluorocarbon (HCFCs) or formaldehyde. As a result, Styrobar® products will not produce harmful emissions to the environment.
- Styrobar Plus products are non-toxic, will not irritate skin on exposure and contains no nutrients for pests or mould.

### Performance Criteria

Performance Criteria				Styrobar Plus 16 Type VIII	Styrobar Plus 22 Type II	Styrobar Plus 28 Type IX	Styrobar Plus HS-40 Type XIV	Styrobar Plus 16 Type 1	Styrobar Plus 22 Type 2	Styrobar Plus 28 Type 3	Styrobar Plus HS-40 Type 3
				COMPLIANCE		ASTM C578			CAN/ULC S701-11		
THERMAL RESISTANCE	Min. at 1" (25 mm) Thickness,	ASTM C518	75°F (24°C)	R-3.85	R-4	R-4.2		RSI 0.68	RSI 0.70	RSI 0.74	
			40°F (4.4°C)	R-4.2	-		RSI 0.74	-			
PHYSICAL	Compressive Strength at 10% deformation, Min.	ASTM D1621	13 psi	16 psi	25 psi	40 psi <sup>1</sup>		70 kPa	110 kPa	140 kPa	276 kPa <sup>1</sup>
	Flexural Resistance Min.	ASTM C203	30 psi	35 psi	50 psi	60 psi		170 kPa	240 kPa	300 kPa	
	Dimensional Stability Max.	ASTM D2126	2%					1.5%			
MOISTURE	Water Vapor Permeance Max.	ASTM E96	< 0.5 perms					< 30 ng/Pa-s-m²			
	Water Absorption Max.	ASTM C272	3%		2%		6%	4%	2%		
FIRE	Flame Spread Index, Max.	ASTM E84 (CAN/ULC S102.2)	< 25 (< 230)								
	Smoke Developed Index, Max.		< 450 (> 500)								
	Max Thickness		4" (102 mm)								
	Density, Max.		2.2 pcf (32 kg/m³)								
	Oxygen Index, Min.	ASTM D2863	24%								

1. Styrobar HS-40 has been shown to have a compressive resistance at 10% deformation of 276 kPa (40 psi), as tested by QAI Laboratories.

Styrobar plus®

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Version 2 (May 9 2023)

## Technical Information

- EPS should not be exposed to volatile hydrocarbons such as fuel oils, gasoline, and some alcohols. Anhydrous acids such as sulfuric and formic acid may also attack EPS.
- Styrobar Plus products contain flame retardants. This, however, will not prevent burning when the material is exposed to a large fire source or intense heat.
- Observe normal fire precautions and good housekeeping methods during application, and provide a protective barrier, such as a thermal barrier, to protect from high heat sources, as required by local building codes.

## Sizes

Styrobar Plus products are available in thicknesses from 3/4" - 4 1/2", in 4' x 8' or 2' x 8' sheets. Styrobar Plus products are manufactured with a standard butt edge. Shiplap, or tongue and groove is available upon special order.

## Packaging

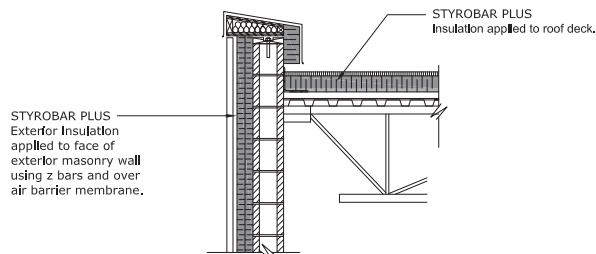
Styrobar Plus 16, 22 and 28 are packaged in bundles measuring 4' x 8' x 2'.

HS40 Styrobar Plus are packaged in bundles measuring 4' x 8' x 1'.

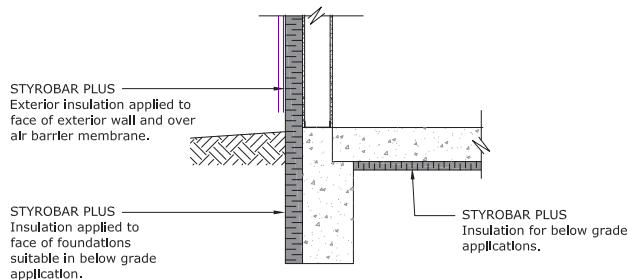
## Manufacturer

AMC Foam Technologies Inc.  
35 Headingley St.  
Headingley Manitoba, R4H 0A8  
877-789-7622

## Applications



Wall & Roof Insulation  
Masonry Insulation



Foundation Insulation  
Below Grade Insulation

## Applicable Standards

ASTM C578	Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
ASTM C518	Standard Test Method for Steady-state Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
ASTM D1621	Standard Test Method for Compressive Properties of Rigid Cellular Plastics.
ASTM D1622	Standard Test Method for Apparent Density of Rigid Cellular Plastics.
ASTM D2842	Standard Test Method for Water Absorption of Rigid Cellular Plastics.
ASTM E96	Standard Test Methods for Water Vapor Transmission of Materials.
ASTM C203	Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation.
ASTM D2863	Standard Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics (Oxygen Index).
CAN/ULC-S701	Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering.

## Disclaimer of Liability

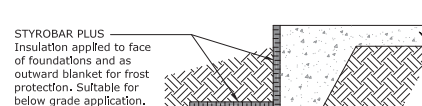
The manufacturer and distributors of this building product shall not be liable for any loss, costs, or damage resulting from uses of this product in systems which are not constructed in the strict compliance with the most exacting design and construction standards (including appropriate venting, drainage, flashing, etc.) contemplated by the National building Code of Canada or by the more rigorous practices or standards enforced at the place of use.

## Technical Support

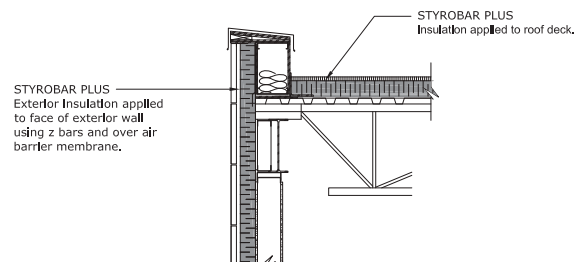
For North American technical inquiries please contact AMC Foam at 1-877-789-7622 or by email at [info@amcfoam.com](mailto:info@amcfoam.com)

## Code Evaluation Approvals

Styrobar Plus 16 CCMC Listing No. 13217-L  
Styrobar Plus 22 CCMC Listing No. 13218-L  
Styrobar Plus 28 CCMC Listing No. 14033-L  
Styrobar Plus HS-40 CCMC Listing No. 14034-L  
QAI Certification Listing No. B1088-1



Slab Thickening Detail  
Frost Protection Insulation



Wall & Roof Insulation  
Steel Stud / Wood Frame Insulation

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