



INNOVATIONS FOR LIVING®

FOAMULAR® Half-Inch Extruded Polystyrene (XPS) Insulation

ASTM C 578 Type X, 15 psi minimum

Product Data Sheet

Description

Owens Corning FOAMULAR® Half-Inch extruded polystyrene (XPS) insulation is a closed cell, moisture-resistant rigid foam board well suited to meet the need for thin rigid foam insulation sheathing. FOAMULAR® Half-Inch XPS insulation is designed for residing applications and provides a flat smooth surface for the installation of siding. It provides an R-value of 3.0, much higher than other residing underlayments, which maximizes and improves energy efficiency, especially in older homes. FOAMULAR® Half-Inch XPS insulation offers superior resistance to moisture for long-term thermal performance and is easy to cut without the need for special tools. Strong, yet lightweight, 2' x 8' and 4' x 8' panels mean fast and easy installation with nails or staples for labor- saving efficiency.

Product Applications

Superior insulation performance for a wide variety of building requirements.

FOAMULAR® Half-Inch XPS insulation can be used for:

- Wood stud wall sheathing
- Steel stud wall sheathing
- Residing applications

Performance Benefits

FOAMULAR® Half-Inch Sheathing creates a protective thermal envelope around the entire building perimeter, reducing energy losses due to thermal bridging through wood or metal framing. This helps reduce energy consumption and increase occupant comfort.

Typical Physical Properties¹

Property	Test Method ²	Value
R-Value for 1/2" thickness ³		
Thermal Resistance, minimum R, °F•ft ² •h/btu (RSI, °C•m ² /W) @ 75°F (24°C) mean temperature @ 40°F (4.4°C) mean temperature	ASTM C 518	3.0 (0.53) 3.2 (0.56)
Thermal Conductivity, maximum k, Btu•in/ft ² •hr•°F @ 75°F mean temperature @ 40°F mean temperature	ASTM C 518	0.20 0.18
Compressive Strength, minimum⁴ lb/in ² (kPa)	ASTM D 1621	15.0 (104)
Flexural Strength, minimum⁵ lb/in ² (kPa)	ASTM C 203	60 (414)
Water Absorption, maximum⁶ % by volume	ASTM C 272	0.10
Water Vapor Permeance, maximum⁷ perm (ng/Pa•s•m ²)	ASTM E 96	1.1 (63)
Dimensional Stability, maximum % linear change	ASTM D 2126	2.0
Flame Spread^{8,9}	ASTM E 84	5
Smoke Developed^{8,9,10}	ASTM E 84	45-175
Oxygen Index, minimum⁸	ASTM D 2863	24
Service Temperature, maximum °F (°C)		165 (74)

1. Properties shown are representative values for 1" thick material, unless otherwise specified.
2. Modified as required to meet ASTM C578.
3. R means the resistance to heat flow; the higher the value, the greater the insulation power. This insulation must be installed properly to get the marked R-value. Follow the manufacturer's instructions carefully. If a manufacturer's fact sheet is not provided with the material shipment, request this and review it carefully.
4. Value at yield or 10% deflection, whichever occurs first.
5. Value at yield or 5%, whichever occurs first.
6. Data ranges from 0.00 to value shown due to the level of precision of the test method.
7. Water vapor permeance decreases as thickness increases.
8. These laboratory tests are not intended to describe the hazard presented by this material under actual fire conditions.
9. Data from Underwriters Laboratories, Inc® classified. See Classification Certificate U-197.
10. ASTM E 84 is thickness-dependent, therefore a range of values is given.

Product Data

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Property	
Material	Extruded polystyrene closed-cell foam, ASTM C 578 Type X, 15 psi minimum
Weight	Approximately 140 -170 lb/1,000 ft ²
Packaging	Shipped in units with individually wrapped bundles. Common unit sizes are 4'x4'x8' or 4'x8'x8'.

Available Sizes and Edges¹

Thickness	Width/Length	Edge Type
1/2"	2' x 8'	Square
1/2"	4' x 8'	Square

1. Other sizes may be available upon request. Consult your local Owens Corning representative for availability.

- High R-Value (R-3.0) mildew, corrosion, rot and decay
- Compressive strength of 15 psi minimum
- Superior moisture-resistance due to its hydrophobic and uniform closed-cell structure
- Effective resistance against
- Ease of handling and installation (lightweight, tough, rigid foam panels)
- Easy to saw, cut, or score
- Complies with building codes and standards



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Standards, Codes Compliance and Certifications

- Meets ASTM C 578 Type X; California Quality Standards; HUD UM #71a
- See ICC-ES Legacy Report 9727A
- UL Classified
A copy of UL Classification Certificate U-197 is available at www.foamular.com
- Certified by Scientific Certification Systems to contain a minimum of 20% pre-consumer recycled polystyrene
- Certified to meet indoor air quality standards under the stringent GREENGUARD Standard for Low-Emitting Products, and the GREENGUARD for Children & SchoolsSM product certification programs
- Qualified as an ENERGYSTAR product, under the U.S. Environmental Protection Agency and the U.S. Department of Energy.



FOAMULAR® Half-Inch XPS insulation is a non-structural material and must be installed on framing which is independently structurally adequate to meet required construction and service loading conditions.

All products may not be available in all geographic markets. Consult your local sales office representative for more information.

FOAMULAR® Half-Inch XPS insulation should be covered as soon as possible after installation. FOAMULAR® Half-Inch XPS insulation should not be left exposed for more than 60 days.

Assure compliance with all local building codes and standards

CAUTION: This product is combustible. A protective barrier or thermal barrier is required as specified in the appropriate building code. For additional information, consult MSDS or contact Owens Corning World Headquarters at 1-800-GET-PINK™.

FOAMULAR® Half-Inch XPS insulation is produced by Owens Corning's patented vacuum process technology.

For more information on this or any Owens Corning product, please call 1-800-GET-PINK™, or visit www.foamular.com or www.owenscorning.com.

FOAMULAR® Half-Inch XPS insulation's R-value is based on real-time aging and the product is warranted to maintain 90 percent of its insulating value for 20 years. FOAMULAR® Half-Inch XPS insulation has a combination of characteristics that yield very low water absorption and is available in a range of compressive strengths that accept loads up to their design limit with little deformation.

Durability, reusability, moisture resistance and the ability to retain R-value in the presence of water enable FOAMULAR® Half-Inch XPS insulation to be used in a wide variety of building applications from roof insulation to below-grade where the insulation will be in constant contact with moisture.

Notes

All construction should be evaluated for the necessity to provide vapor retarders. See current ASHRAE Handbook of Fundamentals.

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