



# FOAMULAR® & FOAMULAR® NGX® HALF-INCH

## EXTRUDED POLYSTYRENE (XPS) RIGID FOAM INSULATION

Owens Corning® FOAMULAR® & FOAMULAR® NGX® 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® & FOAMULAR® NGX® 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® & FOAMULAR® NGX® 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 feet by 8 feet and four feet by 8 feet panels mean fast and easy installation with nails or staples for labor-saving efficiency.

FOAMULAR® NGX® Half-Inch XPS insulation contains the additional benefit of being manufactured with a blowing agent formulation that delivers a 90% reduction to Global Warming Potential (100 years), including the complete elimination of HFC 134a.<sup>1</sup>

1 Compared to FOAMULAR® Half-Inch blowing agent formulation.

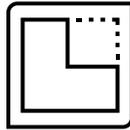
### Features



**SUPERIOR  
MOISTURE  
RESISTANCE**



**DURABLE**



**EASY TO CUT,  
FORM & FIT**

### Standards, Codes Compliance

- Meets ASTM C578 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](http://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 & Schools<sup>SM</sup> product certification programs
- Qualified as an ENERGY STAR product, under the U.S. Environmental Protection Agency and the U.S. Department of Energy

### Applications

Superior insulation performance for a wide variety of building requirements. FOAMULAR® & FOAMULAR® NGX® Half-Inch XPS insulation can be used for:

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

### Physical Properties<sup>2</sup>

PROPERTY	TEST METHOD <sup>3</sup>	VALUE
<b>R-VALUE FOR ½" THICKNESS<sup>4</sup></b>		
Thermal Resistance, minimum R, °F-ft <sup>2</sup> -h/btu (RSI, °C-m <sup>2</sup> /W)	ASTM C518	
@ 75°F (24°C) mean temperature		3.0 (0.53)
@ 40°F (4.4°C) mean temperature		3.2 (0.56)
@ 25°F (-3.9°C) mean temperature		3.3 (0.58)
<b>Thermal Conductivity, maximum k, Btu-in/ft<sup>2</sup>-hr-°F</b>		
@ 75°F (24°C) mean temperature	ASTM C518	0.20
@ 40°F (4.4°C) mean temperature		0.18
Compressive Strength, minimum <sup>5</sup> lb/in <sup>2</sup> (kPa)	ASTM D1621	15.0 (104)
Flexural Strength, minimum <sup>6</sup> lb/in <sup>2</sup> (kPa)	ASTM C203	60 (414)
Water Absorption, maximum <sup>7</sup> % by volume	ASTM C272	0.10
Water Vapor Permeance, maximum <sup>8</sup> perm (ng/Pa-s-m <sup>2</sup> )	ASTM E96	1.5 (86)
Dimensional Stability, maximum % linear change	ASTM D2126	2.0
Flame Spread <sup>9,10</sup>	ASTM E84	10
Smoke Developed <sup>9,10,11</sup>	ASTM E84	175
Oxygen Index, minimum <sup>9</sup>	ASTM D2863	24
Service Temperature, maximum °F (°C)	-	165 (74)

2 Properties shown are representative values for 1-inch-thick material, unless otherwise specified. Extruded Polystyrene Insulation may exhibit different physical properties based upon thickness. Certain physical properties are listed by minimum and maximum values per ASTM C578. For details on specific test methods, please contact Owens Corning at 1-800-GET-PINK.

3 Modified as required to meet ASTM C578.

4 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.

5 Value at yield or 10% deflection, whichever occurs first.

6 Value at yield or 5%, whichever occurs first.

7 Data ranges from 0.00 to value shown due to the level of precision of the test method.

8 Water vapor permeance decreases as thickness increases.

9 These laboratory tests are not intended to describe the hazard presented by this material under actual fire conditions.

10 Data from Underwriters Laboratories, Inc® classified. See Classification Certificate U-197.

11 ASTM E84 is thickness-dependent, therefore a range of values is given.

## Product Data

PROPERTY	
Material	Extruded polystyrene closed-cell foam, ASTM C578 Type X, 15 psi minimum
Weight	Approximately 85–115 lb/1,000 ft <sup>2</sup>
Packaging	Shipped in units with individually wrapped bundles. Common unit sizes are 4' x 4' x 8' or 4' x 8' x 8'

FOAMULAR® & FOAMULAR® NGX® Half-Inch XPS insulation's R-value is based on real-time aging, and the product is warranted to maintain 90% of its insulating value for 20 years. FOAMULAR® & FOAMULAR® NGX® 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, re-usability, moisture resistance, and the ability to retain R-value in the presence of water enable FOAMULAR® & FOAMULAR® NGX® 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.

## Availability<sup>12</sup>

THICKNESS <sup>13</sup>	WIDTH/LENGTH	EDGE TYPE
½"	2' x 8'	Square
½"	4' x 8'	Square

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

13 Nominal size.

## Design Considerations

FOAMULAR® & FOAMULAR® NGX® Half-Inch XPS insulation is a non-structural material and must be installed on framing that 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® & FOAMULAR® NGX® Half-Inch XPS insulation should be covered as soon as possible after installation. FOAMULAR® & FOAMULAR® NGX® Half-Inch XPS insulation should not be left exposed for more than 60 days.

Ensure compliance with all local building codes and standards.

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® & FOAMULAR® NGX® Half-Inch XPS insulation is produced by the patented vacuum process technology of Owens Corning.

For more information on this or any Owens Corning product, please call 1-800-GET-PINK™, or visit [www.foamular.com](http://www.foamular.com) or [www.owenscorning.com](http://www.owenscorning.com).

## Limited Warranty

FOAMULAR® & FOAMULAR® NGX® XPS insulation limited lifetime warranty maintains 90% of its R-value for the lifetime of the building and covers all ASTM C578 properties. See "[FOAMULAR® Extruded Polystyrene Insulation Lifetime Limited Warranty](#)" for complete details, limitations, and requirements.

## Certifications and Sustainable Features

- Certified by SCS Global Services to contain a minimum of 20% recycled content pre-consumer.
- GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit [ul.com/gg](http://ul.com/gg).
- Environmental Product Declaration (EPD) has been certified by UL Environment.
- Qualified as an ENERGY STAR product, under the U.S. Environmental Protection Agency and the U.S. Department of Energy.
- UL CERTIFIED — See Bulk Shipment Certificate U-197, available at [www.owenscorning.com/U197](http://www.owenscorning.com/U197).



## Environmental and Sustainability

Owens Corning is a worldwide leader in building material systems, insulation, and composite solutions, delivering a broad range of high-quality products and services. Owens Corning is committed to driving sustainability by delivering solutions, transforming markets, and enhancing lives. More information can be found at [www.owenscorning.com](http://www.owenscorning.com).

FOAMULAR® and FOAMULAR® NGX® XPS insulation use blowing agents with zero ozone depletion potential.

Detailed environmental information on the lifecycle of this product can be found in product's Environmental Product Declaration:

- "[FOAMULAR® XPS Insulation Environmental Product Declaration](#)"
- "[FOAMULAR® NGX® XPS Insulation Environmental Product Declaration](#)"

## Disclaimer of Liability

Technical information contained herein is furnished without charge or obligation and is given and accepted at recipient's sole risk. Because conditions of use may vary and are beyond our control, Owens Corning makes no representation about, and is not responsible or liable for, the accuracy or reliability of data associated with particular uses of any product described herein.

SCS Global Services provides independent verification of recycled content in building materials and verifies recycled content claims made by manufacturers. For more information, visit [www.SCSglobalservices.com](http://www.SCSglobalservices.com).

LEED® is a registered trademark of the U.S. Green Building Council.

## Notes

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

For additional information, refer to the Safe Use Instruction Sheet (SUIS) found in the SDS Database via <http://sds.owenscorning.com>.

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