FOAMULAR® NGX® HALF-INCH

EXTRUDED POLYSTYRENE (XPS) RIGID FOAM INSULATION

Owens Corning® 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. 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® 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 4 feet by 8 feet panels mean fast and easy installation*.

*See installation instructions for specific application requirements.

Features

SUPERIOR MOISTURE RESISTANCE

DURABLE

EASY TO CUT, FORM & FIT

Standards, Codes Compliance

- Meets ASTM C578 Type X; California Quality Standards; HUD UM #71a
- Tested to ASTM E330 as part of ANSI FS 100 Compliance**
- Code Evaluation Report UL ER8811-01; Report is available at www.owenscorning.com/UER8811-01
- UL Classification Certificate U-197; Certification is available at www.owenscorning.com/U197

**See technical bulletin.

Applications

- Cavity Wall Continuous Insulation
- Wall Sheathing**
- Residing

Physical Properties[1]

PROPERTY R-VALUE FOR ½" THICKNESS[3]	TEST METHOD[2]	VALUE
Thermal Resistance*, minimum R, °F•ft²•h/btu (RSI, °C•m² /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)
Thermal Conductivity, maximum k, Btu•in/ft²•hr•°F	ASTM C518	
@ 75°F (24°C) mean temperature		0.20
@ 40°F (4.4°C) mean temperature		0.18
Compressive Strength, minimum[4] lb/in² (kPa)	ASTM D1621	15.0 (104)
Flexural Strength, minimum[5] lb/in² (kPa)	ASTM C203	60 (414)
Water Absorption, maximum[6] % by volume	ASTM C272	0.10
Water Vapor Permeance, maximum[7] perm (ng/Pa•s•m²)	ASTM E96	1.5 (86)
Dimensional Stability, maximum % linear change	ASTM D2126	2.0
Flame Spread[8,9]	ASTM E84	10
Smoke Developed[8,9,10]	ASTM E84	175
Oxygen Index, minimum[8]	ASTM D2863	24
Service Temperature, maximum °F (°C)	-	165 (74)

1 Properties shown are representative values for 1-inch-thick material, unless otherwise specified with an asterisk (*), which represents properties for 1/2 inch product. 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.
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 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^2
Packaging	Shipped in units with individually wrapped bundles. Common unit sizes are 4' x 4' x 8' or 4' x 8' x 8'

Availability[11]

THICKNESS[12]	WIDTH/LENGTH	EDGE TYPE
½"	2' x 8'	Square
½"	4' x 8'	Square

11 Other sizes may be available upon request. Consult your local Owens Corning representative for availability.
12 Nominal size (slightly thicker than noted).

Technical Information

FOAMULAR® NGX® XPS Insulation can be installed direct to studs to meet construction and service-loading conditions*. Must be installed on framing that is independently braced and structurally adequate to meet required construction and service-loading conditions. Not intended for use in high seismic or wind zones.

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

FOAMULAR® NGX® XPS insulation can be exposed to the exterior during normal construction cycles. During that time, some fading of color may begin due to UV exposure, and if exposed for extended periods of time, some degradation or "dusting" of the polystyrene surface may begin. It is best if the product is covered within 60 days to minimize degradation. Once covered, the deterioration stops, and damage is limited to the thin top surface layers of cells. Cells below are generally unharmed and still useful insulation.

FOAMULAR® NGX® XPS insulation has a maximum service temperature of 165°F. Install only as much FOAMULAR® NGX® XPS insulation as can be covered in the same day. For horizontal applications, always turn the print side down so the black print does not show to the sun, which may at times act as a solar collector, raising the temperature of the foam under the print to an unacceptable level.

Do not cover FOAMULAR® NGX® XPS insulation, either stored (factory-wrapped or unwrapped) or partially installed, with dark-colored (non-white) or clear (nonopaque) coverings and leave it exposed to the sun. Examples of such coverings include but are not limited to filter fabrics, membranes, temporary tarps, clear polyethylene, etc. If improperly covered and exposed to the right combination of sun, time, and temperature, FOAMULAR® NGX® XPS insulation deformation damage may occur rapidly. See "FOAMULAR® NGX® Extruded Polystyrene (XPS) Insulation Heat Buildup Due to Solar Exposure Technical Bulletin" for more information.

This product is combustible. A protective barrier or thermal barrier is required to separate this product from interior living or conditioned spaces as specified in the appropriate building code.

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

Limited Warranty

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 pre-consumer recycled content
- 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.
- Environmental Product Declaration (EPD) has been certified by SCS Global Services. Reference Registration # SCS-EPD-09753.
- 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.

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.

FOAMULAR® NGX® XPS insulation uses 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® 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.

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

Notes

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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RECYCLED CONTENT MATTERS

Scan to learn more

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