



# FOAMULAR® NGX® INSULATING SHEATHING

## EXTRUDED POLYSTYRENE (XPS) RIGID FOAM INSULATION

Owens Corning® FOAMULAR® NGX® Insulating Sheathing (IS) XPS film-faced insulation creates an effective insulating envelope over the entire structure and suits a variety of exterior finishes. These strong, lightweight, rigid foam panels with a film facer provide the durability and damage resistance necessary to meet the rigorous demands of site-built construction.

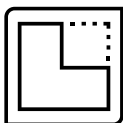
### Features



**SUPERIOR  
MOISTURE  
RESISTANCE**



**DURABLE**



**EASY TO CUT,  
FORM & FIT**

### Standards, Codes Compliance

- Meets ASTM C578 Type X
- Tested to ASTM E330 per ANSI/ABTG FS100 for sheathing applications
- UL Classification Certificate U-197, Certification is available at [www.owenscorning.com/U197](http://www.owenscorning.com/U197)
- Code Evaluation Report UL ER8811-01, Report is available at [www.owenscorning.com/UER8811-01](http://www.owenscorning.com/UER8811-01)
- Meets California Quality Standards and HUD UM #71A

### Applications

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

### 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® NGX® Extruded Polystyrene Insulation Lifetime Limited Warranty”](#) for complete details, limitations, and requirements.

### Physical Properties<sup>1</sup>

PROPERTY	TEST METHOD <sup>4</sup>	VALUE
Thermal Resistance, <sup>3</sup> R-Value, hr·ft <sup>2</sup> ·°F/Btu (RSI, °C·m <sup>2</sup> /W) @ 75°F (24°C) mean temperature	ASTM C518	5.0 (0.88)
@ 40°F (4.4°C) mean temperature		5.4 (0.95)
@ 25°F (-3.9°C) mean temperature		5.6 (0.99)
Long-Term Thermal Resistance, LTTR-Value, <sup>5</sup> minimum hr·ft <sup>2</sup> ·°F/Btu (RSI, °C·m <sup>2</sup> /W) @ 75°F (24°C) mean temperature	CAN/ULC S770-03	5.0 (0.88)
Compressive Strength, <sup>4</sup> minimum psi (kPa)	ASTM D1621	15 (104)
Flexural Strength, <sup>5</sup> minimum psi (kPa)	ASTM C203	40 (276)
Water Absorption, <sup>6</sup> maximum % by volume	ASTM C272	0.3
Water Vapor Permeance, <sup>7</sup> maximum perm (ng/Pa·s·m <sup>2</sup> )	ASTM E96	0.2/(11.5)
Dimensional Stability, maximum % linear change	ASTM D2126	2.0
Flame Spread <sup>8,9</sup>	ASTM E84	10
Smoke Developed <sup>8,9</sup>	ASTM E84	175
Oxygen Index, <sup>8</sup> minimum % by volume	ASTM D2863	24
Service Temperature, maximum °F (°C)	-	165 (74)
Linear Coefficient of Thermal Expansion, in/in/°F (m/m/°C)	ASTM E228	3.5 x 10 <sup>-5</sup> (6.3 x 10 <sup>-5</sup> )

- 1 Properties shown are representative values for 1-inch-thick 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.
- 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. R-values vary, depending on many factors, including the mean temperature at which the test is conducted and the age of the sample at the time of testing. The U.S. FTC requires the R-value of home insulation to be measured at 75°F mean temperature. R-value claims should always be compared at the same mean temperature. Because rigid foam plastic insulation products are not all aged in accordance with the same standards, it is useful to publish comparison R-value data. The R-value for FOAMULAR® NGX® XPS Insulation is provided from testing at three mean temperatures, 25°F, 40°F, and 75°F, and from two aging (conditioning) techniques, 180-day real-time aged (as mandated by ASTM C578) and a method of accelerated aging sometimes called "Long-Term Thermal Resistance" (LTTR) per CAN/ULC S770-03.
- 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 hazards presented by this material under actual fire conditions.
- 9 Data from Underwriters Laboratories Inc.® classified. See Classification Certificate U-197.

## Product and Packaging Data<sup>10</sup>

Shipped in poly-wrapped units with individually wrapped or banded bundles.

THICKNESS (IN)	PRODUCT DIMENSIONS THICKNESS (IN) X WIDTH (IN) X LENGTH (IN)	PALLET (UNIT) DIMENSIONS (TYPICAL) WIDTH (FT) X LENGTH (FT) X HEIGHT (FT)	SQUARE FEET PER PALLET	BOARD FEET PER PALLET	BUNDLES PER PALLET	PIECES PER BUNDLE	PIECES PER PALLET	EDGES
½	½ x 48 x 96 (Half Unit)	4 x 8 x 4	2,560	1,490	4	20	80	Square
	½ x 48 x 108 (Half Unit)	4 x 9 x 8	2,880	1,676	4	20	80	Square
¾	¾ x 48 x 96 (Half Unit)	4 x 8 x 4	1,920	1,536	2	30	60	Tongue & Groove

<sup>10</sup> Available lengths and edge configurations vary by thickness. Other sizes may be available upon request. Consult your local Owens Corning representative for availability.

## Technical Information

- FOAMULAR® NGX® XPS Insulation are non-structural materials and must be installed on framing that is independently braced and structurally adequate to meet required construction and service-loading conditions.
- 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 have a maximum service temperature of 165°F. Taking simple precautions during construction can minimize the potential for heat-related damage. 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. Provide a final finish covering or temporary white opaque covering to avoid possible damage when dark (non-white) surfaces are used over FOAMULAR® NGX® XPS Insulation. Do not cover FOAMULAR® NGX® XPS Insulation, either stored (factory-wrapped or unwrapped) or partially installed, with dark-colored (non-white) or clear (non-opaque) coverings and leave it exposed to the sun. 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 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."

## Certifications

- 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](http://ul.com/gg).
- Environmental Product Declaration (EPD) has been certified by SCS Global Services. Reference Registration # SCS-EPD-09753.
- Utilizing FOAMULAR® NGX® XPS insulation can help builders achieve green building certifications, including the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) certification.
- UL CERTIFIED — See Bulk Shipment Certificate U-197, available at [www.owenscorning.com/U197](http://www.owenscorning.com/U197).
- FOAMULAR® NGX® Insulating Sheathing XPS Insulation has earned the EPA's ENERGY STAR certification.

## 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® 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® 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 products described here may not be available in all geographic markets. For more information on the Owens Corning family of building products, contact your Owens Corning dealer, call 1-800-GET-PINK®, or access our website: [www.owenscorning.com](http://www.owenscorning.com).

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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