



FOAMULAR® INSULATING SHEATHING DAMAGE- RESISTANT DURABILITY

Extruded Polystyrene (XPS) Rigid Foam Insulation

FOAMULAR® 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 face provide the durability and damage resistance necessary to meet the rigorous demands of site built construction.

Features

- Readily combines with blanket-type insulation for greater R-value
- Tough film facers for added damage-resistance
- Excellent long-term stable insulating performance with an R-value of R-3, R-4 or R-5
- Retains its long term R-value, year after year— even after prolonged exposure to moisture and freeze/thaw cycling
- Exceptional moisture resistance, long-term durability
- Will not corrode, rot or support mold growth
- Lightweight, durable rigid foam panels are easy to handle and install
- Easy to cut, score, or saw

Applications

FOAMULAR® (IS) XPS Insulation is ideal as a sheathing for both wood and metal framed construction, or over wood sheathing, and suits a variety of exterior finishes.

Standards, Codes Compliance

- Meets ASTM C 578 Type X
- UL Classified per UL Classification Certificate U-197 and UL ER881 1-01
- Fire Resistance Rated Wall Assemblies per ASTM E119
- Meets California Quality Standards and HUD UM #71A
- Compliance verification by RADCO (AA-650)



Design Considerations

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.

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

FOAMULAR® 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.

Physical Properties¹

FOAMULAR® Insulating Sheathing Insulation

PROPERTY	TEST METHOD ²	VALUE
Thermal Resistance³ , R-Value (180 day) minimum, hr·ft ² ·°F/Btu (RSI, °C·m ² /W) @ 25°F (-3.9°C) mean temperature 1/2" Thickness ⁴ 3/4" Thickness 1" Thickness @ 40°F (4.4°C) mean temperature 1/2" Thickness ⁴ 3/4" Thickness 1" Thickness @ 75°F (24°C) mean temperature 1/2" Thickness ⁴ 3/4" Thickness 1" Thickness	ASTM C518	3.3
		4.4
		5.6
		3.2 (0.57)
		4.3 (0.76)
		5.4 (0.95)
		3.0 (0.53)
		4.0 (0.70)
		5.0 (0.88)
Long Term Thermal Resistance , LTTR-Value ³ , hr·ft ² ·°F/Btu (RSI, °C·m ² /W) @ 75°F (24°C) mean temperature 1/2" Thickness ⁴ 3/4" Thickness 1" Thickness	CAN/ULC S770-03	N/A N/A 5.0 (0.88)
Flexural Strength⁵ , minimum psi (kPa) 1/2" Thickness ⁴ 3/4" Thickness 1" Thickness	ASTM C203	N/A N/A 65 (448)
Compressive Strength⁴ , minimum psi (kPa)	ASTM D1621	15 (103)
Water Absorption⁶ , maximum % by volume	ASTM C272	0.10
Water Vapor Permeance⁷ , maximum perm (ng/Pa·s·m ²)	ASTM E96	0.2 (11.5)
Dimensional Stability , maximum % linear change	ASTM D2126	2.0
Flame Spread^{8,9}	ASTM E84	5
Smoke Developed^{8,9,10}	ASTM E84	45-175
Oxygen Index⁸ , maximum % by volume	ASTM D2863	24
Service Temperature⁸ , maximum °F (°C)	-	165 (74)
Linear Coefficient of Thermal Expansion , in/in/°F (m/m/°C)	ASTM E228	3.5x10 ⁻⁶ (6.3x10 ⁻⁶)

- Properties shown are representative values for 1" thick material, unless otherwise specified.
- Modified as required to meet ASTM C578.
- 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. 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® 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. The R-value at 180 day real-time age and 75°F mean temperature is commonly used to compare products and is the value printed on the product.
- Values at yield or 10% deflection, whichever occurs first.
- Value at yield or 5%, whichever occurs first.
- Data ranges from 0.00 to value shown due to the level of precision of the test method.
- Water vapor permeance decreases as thickness increases.
- These laboratory tests are not intended to describe the hazards presented by this material under actual fire conditions.
- Data from Underwriters Laboratories Inc.® classified. See Classification Certificate U-197.
- ASTM E 84 is thickness-dependent, therefore a range of values is given.

Packaging Data

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

THICKNESS (IN)	PRODUCT DIMENSIONS (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
1/2	1/2 x 48 x 96 (Half Unit)	4 x 8 x 4	2,560	1,280	4	20	80	Square
	1/2 x 48 x 108	4 x 9 x 8	5,760	2,880	8	20	160	Square
3/4	3/4 x 48 x 96 (Half Unit)	4 x 8 x 4	2,048	1,536	4	16	64	Tongue & Groove
	3/4 x 48 x 108	4 x 9 x 8	4,608	3,456	8	16	128	Tongue & Groove
1	1 x 48 x 96	4 x 8 x 8	1,536	1,536	4	12	48	Tongue & Groove

- Available lengths and edge configurations vary by thickness. See www.owenscorning.com/insulation for current offerings. Other sizes may be available upon request. Consult your local Owens Corning representative for availability.

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/sustainability.

Certifications and Sustainable Features

- Certified by SCS Global Services to contain an average of 20% recycled content
- Certified to meet indoor air quality standards under the stringent GREENGUARD Indoor Air Quality Certification Program, and the GREENGUARD Gold Certification.



Warranty

FOAMULAR® XPS insulation limited lifetime warranty maintains 90% of its R-value for the lifetime of the building and covers all ASTM C578 properties. See actual warranty for complete details, limitations and requirements at www.owenscorning.com.

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.

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 web site: www.owenscorning.com.

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

Owens Corning Insulating Systems, LLC

One Owens Corning Parkway Toledo, Ohio, USA 43659

1-800-438-7465 (1-800-Get-Pink®) | www.owenscorning.com