



FOAMULAR® 150

Extruded Polystyrene (XPS)

Rigid Foam Insulation



Description

Owens Corning® FOAMULAR® 150 Extruded Polystyrene XPS Rigid Foam Insulation is a closed cell, moisture-resistant rigid foam board well suited to meet the need for a wide variety of building applications.¹ FOAMULAR® 150 Extruded Polystyrene XPS Rigid Foam Insulation is great for many residential and commercial construction applications such as wall furring, perimeter/foundation, cavity wall, pre-cast concrete, crawl spaces, sheathing and other applications.¹

Features

- Excellent long-term stable insulating performance at R-5² per inch
- Exceptional moisture resistance, long-term durability
- Lightweight, durable rigid foam panels are easy to handle and install
- Easy to saw, cut or score

1. Not for use in roofing. For roofing applications, use FOAMULAR® THERMAPINK® Extruded Polystyrene (XPS) Rigid Foam Insulation.
 2. R means the resistance to heat flow; the higher the R-value, the greater the insulating power.

Applications

- High-performance FOAMULAR® 150 Extruded Polystyrene XPS Rigid Foam Insulation:
- Retards the transmission of water vapor and moisture in masonry walls
- Provides continuous insulation over steel stud framing, in insulated concrete sandwich panel walls, or in masonry unit cavity walls, or when used with non-penetrating, surface mounted furring systems over masonry or concrete walls
- Insulates and retains its properties in below grade perimeter and foundation applications, to complement the insulating sheathing envelope around the building framing
- Provides a weather resistant barrier (when joints are sealed) to enhance the building resistance to air and moisture penetration
- XPS Rigid Foam Insulation is great for below grade applications. XPS is resistant to degradation from the components of common soils and will retain its insulating performance characteristics even after prolonged exposure to moisture

Physical Properties¹

Property	Test Method ²	Value
Thermal Resistance ³ , R-Value (180 day) minimum, hr·ft ² ·°F/Btu (RSI, °C·m ² /W) @ 75°F (24°C) mean temperature	ASTM C518	
1" Thickness		5.0 (0.88)
1½" Thickness		7.5 (1.32)
2" Thickness		10 (1.76)
2½" Thickness		12.5 (2.20)
3" Thickness		15 (2.64)
@ 40°F (4.4°C) mean temperature		
1" Thickness		5.4 (0.95)
1½" Thickness		8.1 (1.43)
2" Thickness		10.8 (1.90)
2½" Thickness		13.5 (2.38)
3" Thickness		16.2 (2.85)
Long Term Thermal Resistance, LTTR-Value ³ minimum hr·ft ² ·°F/Btu (RSI, °C·m ² /W) @ 75°F (24°C) mean temperature	CAN/ULC S770-03	
1" Thickness		5.0 (0.88)
1½" Thickness		7.8 (1.37)
2" Thickness		10.6 (1.87)
2½" Thickness		13.4 (2.36)
3" Thickness		16.2 (2.85)
Compressive Strength ⁴ , minimum psi (kPa)	ASTM D1621	15 (103)
Flexural Strength ⁵ , minimum psi (kPa)	ASTM C203	60 (414)
Water Absorption ⁶ , maximum % by volume	ASTM C272	0.10
Water Vapor Permeance ⁷ , maximum perm (ng/Pa·s·m ²)	ASTM E96	1.5 (86)
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 Index ⁸ , 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 ⁻⁵ (6.3 x 10 ⁻⁵)

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. 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 two mean temperatures, 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.
 4. Values 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.
 10. ASTM E84 is thickness-dependent, therefore a range of values is given.

Product and Packaging Data

Material		Packaging						
Extruded polystyrene closed cell foam, ASTM C578 Type X, 15 psi minimum		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
1	1 x 24 x 96	4 x 8 x 8	3,072	3,072	8	24	192	Square Edge, Scored Square Edge, Tongue & Groove
	1 x 24 x 96	4 x 8 x 8	3,072	3,072	8	24	192	
	1 x 48 x 96	4 x 8 x 8	3,072	3,072	8	12	96	
	1 x 48 x 96 (Half unit)	4 x 8 x 4	1,536	1,536	4	12	48	
	1 x 48 x 108	4 x 9 x 8	3,456	3,456	8	12	96	
1½	1.5 x 24 x 96	4 x 8 x 8	2,048	3,072	8	16	128	
	1.5 x 48 x 96	4 x 8 x 8	2,048	3,072	8	8	64	
2	2 x 24 x 96	4 x 8 x 8	1,536	3,072	8	12	96	
	2 x 48 x 96	4 x 8 x 8	1,536	3,072	8	6	48	
2½	2.5 x 48 x 96	4 x 8 x 8	1,152	2,830	4	9	36	
3	3 x 24 x 96	4 x 8 x 8	1,024	3,072	8	8	64	
	3 x 48 x 96	4 x 8 x 8	1,024	3,072	8	4	32	

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

Technical Information

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

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

FOAMULAR® 150 Extruded Polystyrene XPS Rigid Foam Insulation is a non-structural material.

FOAMULAR® XPS Insulation can be left exposed for up to 60 days. During that time some degradation or “dusting” of the polystyrene surface may begin. Once covered, the deterioration stops.

FOAMULAR® 150 Extruded Polystyrene XPS Rigid Foam Insulation has a maximum service temperature of 165°F. For horizontal applications, always turn the black print side down. Do not cover FOAMULAR® 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. See Owens Corning publication number 10015704, “Heat Build Up Due to Solar Exposure” for more information.

Standards, Codes Compliance

- Meets ASTM C578 Type X
- UL Classification Certificate U-197¹²
- Code Evaluation Report UL ER8811-01¹²
- ASTM E119 Fire Resistance Rated Wall Assemblies¹²
- Meets California Quality Standards; HUD UM #71a
- Compliance verification by RADCO (AA-650)

12. Visit www.owenscorning.com for more details.

Limited 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.

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.

Notes

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

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
- Environmental Product Declaration (EPD) has been certified by UL Environment
- Utilizing FOAMULAR® 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



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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.



OWENS CORNING FOAM INSULATION, LLC
ONE OWENS CORNING PARKWAY
TOLEDO, OHIO, USA 43659

1-800-GET-PINK®
www.owenscorning.com

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