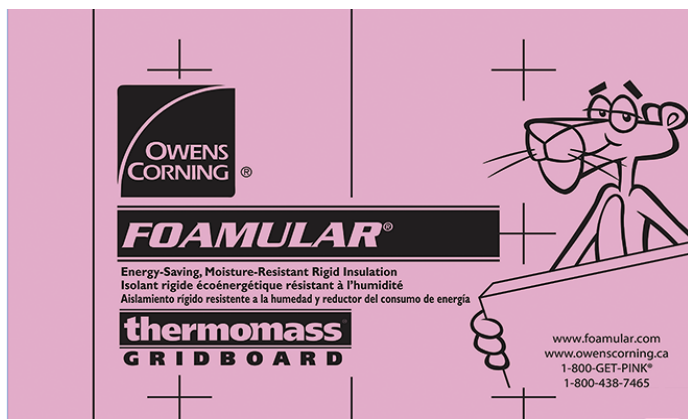




FOAMULAR® GRIDBOARD

Extruded Polystyrene (XPS)

Rigid Foam Insulation



Description

Owens Corning FOAMULAR® GRIDBOARD Extruded Polystyrene (XPS) Rigid Foam Insulation is a closed cell, moisture-resistant, durable rigid foam board intended for use in a variety of Thermomass® concrete sandwich wall insulation systems; pre-cast, tilt wall and cast in place.

Features

- Excellent insulating performance at R-5¹ per inch
- Exceptional moisture resistance and durability
- Pre marked grid pattern to aid in onsite fabrication and connector placement
- Will not corrode, rot or support mold growth
- Lightweight, durable rigid foam panels are easy to handle, fabricate and install
- Easy to saw, cut or score

1. R-5 represents the resistance to Heat Flow. The higher the R-value the greater the insulating power.

Product Type

- Minimum compressive strength of 25 PSI
- Wide variety of sizes and thicknesses
- Square Edge/ Butt Edge configuration

Physical Properties²

Property	Test Method ²	Value
Thermal Resistance ⁴ , R-value (180 day) minimum, hr·ft ² ·°F/Btu (RSI, °C·m ² /W) @ 75°F (24°C) mean temperature		
1" Thickness	ASTM C518	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)
4" Thickness		20 (3.52)
@ 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)
4" Thickness		21.6 (3.80)
Long Term Thermal Resistance, LTTR-value ⁴ , minimum hr·ft ² ·°F/Btu (RSI, °C·m ² /W) @ 75°F (24°C) mean temperature		
1" Thickness	CAN/ULC S770-03	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)
4" Thickness		22.0 (3.87)
Compressive Strength ⁵ , minimum psi (kPa)	ASTM D1621	25 (172)
Flexural Strength ⁶ , minimum psi (kPa) ASTM	ASTM C203	75 (517)
Water Absorption ⁷ , maximum % by volume	ASTM C272	0.10
Water Vapor Permeance ⁸ , maximum perm (ng/Pa·s·m ²)	ASTM E96	1.5 (86)
Dimensional Stability, maximum % linear change	ASTM D2126	2.0
Flame Spread ^{9, 10}	ASTM E84	5
Smoke Developed ^{9, 10, 11}	ASTM E84	45-175
Oxygen Index ¹² , 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)

- 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 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.
- 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 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 IV, 25 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 48 x 96	4 x 8 x 8	3,072	3,072	8	12	96	Square Edge
1½	1½ x 48 x 96	4 x 8 x 8	2,048	3,072	8	8	64	
2	2 x 48 x 96	4 x 8 x 8	1,536	3,072	8	6	48	
2½	2½ x 48 x 96	4 x 8 x 8	1,152	2,880	4	9	36	
3	3 x 48 x 96	4 x 8 x 8	1,024	3,072	8	4	32	
4	4 x 48 x 96	4 x 8 x 8	768	3,072	8	3	24	

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

Applications

- Slows the transmission of water vapor and moisture
- Provides continuous insulation in Thermomass® insulated concrete sandwich wall construction
- FOAMULAR® GRIDBOARD is resistant to degradation from the components of common soils and will retain its insulating performance characteristics even after prolonged exposure to moisture
- Provides a weather resistant barrier (when joints are properly sealed) to enhance the building's resistance to air and moisture penetration

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

FOAMULAR® GRIDBOARD can be exposed to 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 of "dusting" of the polystyrene surface may begin. It is best if the product is covered within 60 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.

Standards, Codes Compliance

- Meets ASTM C578 Type IV
- Meets CAN/ULC S701 Type 3
- UL Classified. A copy of the UL Classification Certificate U-197 is available at www.owenscorning.com
- Code Evaluation Report: UL ER8811-01 at UL.com
- See CCMC 13431-L
- ASTM E119 Fire Resistance Rated Wall Assemblies. See www.owenscorning.com for details
- Meets California Quality Standards; HUD UM #71A
- Compliance verification by RADCO (AA-650)

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.

Warranty

FOAMULAR® GRIDBOARD 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. Foamular Gridboard may not be available in all geographic markets. Consult your local sales office representative for more information.

For more information on the Owens Corning family of building products, contact your Owens Corning dealer, call 1-800-GET-PINK or access 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 an average of 20% 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 UL Environment



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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.



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