Product Data Sheet



FOAMULAR® 250 Rigid Foam Insulation

All-purpose foam panel insulation for masonry and other applications.

Owens Corning FOAMULAR 250 extruded polystyrene insulation is ideal for wall furring, perimeter/ foundation, cavity wall, crawlspace, pre-cast concrete, under slab, roofing systems, sheathing and other applications. Owens Corning's patented Hydrovac‰ process technology make the unique closed-cell structure of FOAMULAR insulation highly resistant to moisture, retaining it's initial R-value* year after year – even following prolonged exposure to water leakage, humidity, condensation, ground water and freeze/ thaw cycling.

FOAMULAR 250 Performance Benefits

- High R-value (R-5 per inch of product thickness).*
- Compressive strength of 25 psi.
- Effective resistance against moisture, mildew, corrosion and rot.
- Ease of handling and installation (lightweight, tough, rigid foam panels).
- Easy to saw, cut and score
- Wide selection of sizes and thicknesses.
- Availability in straight, tongue and groove, or scored square edges.
- Compliance with building codes and standards.

FOAMULAR 250

Superior Insulation Performance for a Wide Variety of Building Requirements

Product Applications

High-performance FOAMULAR 250 works to:

 Retard the transmission of water vapor and moisture in masonry walls, helping prevent structural damage.



- Provides insulation in a metal or wood furring system used for masonry or concrete walls.
- Perform below grade in perimeter and foundation applications, or directly beneath the concrete slab to complement the insulating sheathing envelope around the building framing.

Resistant to common soils and decay, Owens Corning FORMULAR retains its insulating performance characteristics even after prolonged exposure to moisture.

Standards and Codes Compliance

- Recognized by code authorities under Research Reports BOCA 91-54; ICBO 3628; SBCCI PST & ESI 9727
- Meets HUD/FHA Use of Materials Bulletin No. 71 and ASTM C 578-92 Type IV
- Underwriters Laboratories, Inc., Classification Certificate U-197
- Thermal resistance: 5.0 at 75 °F, 5.4 at 40 °F mean temperature and 1" thickness (hr x ft² x °F/Btu)

Technical Information

- FOAMULAR insulation is ideal for all buildings under normal temperature conditions, but should not be used in contact with chimneys, heater vents, steam pipes or other surfaces where temperatures exceed 150 °F. It is not recommended for applications where sustained temperatures exceed 165 °F.
- All construction should be evaluated for the necessity to provide vapor retarders. See current ASHRAE Handbook of Fundamentals
- FOAMULAR insulation is a nonstructural material and must be installed on framings which are independently structurally adequate to meet required construction and service loading conditions.

FOAMULAR 250 Rigid Foam Insulation

FOAMULAR Physical Properties⁽¹⁾

	Product/Values	
Property	ASTM Method ⁽²⁾	FOAMULAR 250
Thermal conductivity – "k" ⁽³⁾ [Btu x in/ft ² x hr x °F max] @ 75°F mean temperature @ 40°F mean temperature	C5180.20	0.20 0.18
Compressive strength, Minimum (specification) value (lb/in ²) ⁽⁴⁾	D1621	25.0
Flexural strength (lb/in² min) ⁽⁵⁾	C203	75
Water absorption (% by volume max) [®]	C272	0.10
Water vapor permeance (perm max) ⁽⁷⁾	E96	0.60
Water affinity	-	hydrophobic
Water capillarity	-	none
Dimensional stability (% linear change max) [®]	D2126	2.0
Linear coefficient of thermal expansion (in/in/°F max)	_	2.7x10-5
Flame spread ⁽⁹⁾⁽¹⁰⁾	E84	5
Smoke developed ⁽⁹⁾⁽¹⁰⁾⁽¹¹⁾	E84	45-175
Oxygen index min ⁽⁹⁾	D2863	24

(1) Properties shown are representative values for 1" thick material based upon most recent product quality audit data. (2) Modified as required to meet ASTM C578-92. (3) Thermal resistance (R) (hr. x ft.² x °F/Btu) – of a 1" thickness at 5.0 (at 75°F mean temperature), 5.4 (at 40°F). (4) Value at yield. (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) Actual water vapor permeance data decreases as thickness increases. (8) Data ranges from 0.0 to value shown. (9) These laboratory tests are not intended to describe the hazard presented by this material under actual fire conditions. (10) Data from Underwriters Laboratories, Inc.º classified. See Classification Certificate U-197 (11) ASTM E84 is thickness-dependent, therefore a range of values is given.

Product Data

FOAMULAR Insulation Product – 250 (25psi)⁽³⁾

Material Extruded polystyrene closed-cell foam panel with continuous skins on face and back surfaces			
Thicknesses ⁽¹⁾ (in)	Width x Length ⁽²⁾ (in)	Edges	
1, 1½, 2, 2½, 3	16 x 96	Square	
34, 1, 11/2, 2, 21/2, 3, 31/2, 4	24 x 96	Square	
34, 1, 11/2, 2, 21/2, 3	48 x 96	Square	
1/2, 3/4, 1	48 x 108	Square	
34, 1, 11/2, 2, 21/2, 3	48 x 96	Scored Square	
34, 1, 1½, 2	24 x 96	$T\&G^{(4)}$	
34, 1, 1½, 2	48 x 96	$T\&G^{\scriptscriptstyle (4)}$	
3⁄4, 1	48 x 108	T&G ⁽⁴⁾	
Weight 150 lb/1,000 ft ² for 1" thickness			

Packaging Shipped in units with two stretchwrap bands per bundle, with an additional exterior wrap

"R" per inch: 5.0 (at 75°F mean temperature).
Other sizes available on request. Consult your local Owens Corning representative for availability.
Compressive strength, minimum (specification) value (lb/in²). (4) Tongue-and-groove edge reduces air infiltration.

Note: All products described here may not be available in all geographic markets. Consult your local Owens Corning sales office or representative for information.

Caution

This product will ignite if exposed to fire of sufficient heat and intensity. This product should be installed only with a gypsum board on the interior side of the wall. During shipping, storage, installation and use, this product should not be exposed to open flame or other ignition sources.

Note

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

Technical Information:

(800) 828-7155

Export Sales Office: (330) 633-1105

FOAMULAR insulation is produced by Owens Corning's patented HYDROVAC® process technology.

For more information on the

Owens Corning family of home building products, contact your Owens Corning dealer, call 1 - 8 0 0 - G E T - P I N K or access our Web site:

www.owenscorning.com





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