OWENS CORNING®
INNOVATIONS FOR LIVING™

FOAMULAR® 250
Rigid Foam Insulation

Product Data Sheet

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 long term R-value* year after year – even following prolonged exposure to water leakage, condensation, ground-water and freeze/thaw cycling.

Performance Benefits

- High R-value (R-5 per inch of product thickness).*
- Minimum 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.
- Available in straight, tongue and groove, or scored square edges.
- Compliance with building codes and standards.

Product Applications

Superior insulation performance for a wide variety of building requirements.

High-performance FOAMULAR 250 works to:

- When joints are taped, provides a weather resistant barrier to enhance the longevity of the building.
- Provides insulation in a metal or wood furring system used for masonry or concrete walls.
- Performs below grade in perimeter and foundation applications, or directly beneath the concrete slab to complement the insulating sheathing envelope around the building framing.

FOAMULAR is ideal for below grade applications. Extruded polystyrene (XPS) is resistant to degradation from material common to most soils and will retain its insulating performance characteristics even after prolonged exposure to moisture.

Typical Physical Properties[1]

Property	Test Method[2]	Value
Thermal conductivity - "k"[3] (Btu x in/hr x ft² x °F)	ASTM C 518	
@ 75°F mean temperature		0.20
@ 40°F mean temperature		0.18
Thermal Resistance - "R", minimum (°F x ft² x h/btu)	ASTM C 518	
@ 75°F mean temperature		5.0
@ 40°F mean temperature		5.4
Compressive Strength, minimum (lb/in²)[4]	ASTM D 1621	25.0
Flexural Strength (lb/in² min)[5]	ASTM C 203	75
Water Absorption (% by volume max)[6]	ASTM C 272	0.10
Water Vapor Permeance (perm max)[7]	ASTM E 96	1.1
Water Affinity	—	hydrophobic
Water Capillarity	—	none
Dimensional Stability (% linear change max)[8]	ASTM D 2126	2.0
Linear Coefficient of thermal expansion (in/in/°F max)	—	2.7×10^{-5}
Flame Spread[9,10]	ASTM E 84	5
Smoke Developed[9,10,11]	ASTM E 84	45-175
Oxygen Index min[9]	ASTM D 2863	24
Service Temperature max (°F)		165
ASTM C 578 (type)		IV

[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.
[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 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]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®, classified. See Classification Certificate U-197.
[11]ASTM E84 is thickness-dependent, therefore a range of values is given.

*The higher the R-value, the greater the insulating power. Ask your seller for the fact sheet on R-values.

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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 165°F.
- All construction should be evaluated for the necessity to provide vapor retarders. See current ASHRAE Handbook of Fundamentals
- FOAMULAR insulation is a non-structural material and must be installed on framings which are independently structurally adequate to meet required construction and service loading conditions.

Standards and Codes Compliance

- Recognized by code authorities under Research Reports BOCA 96-24; ICBO 3628; SBCCI PST & ESI 9727A
- Meets HUD/FHA Use of Materials Bulletin No. 71a and ASTM C 578 Type IV
- Underwriters Laboratories, Inc.®, Classification Certificate U-197
- Thermal resistance (R-value): 5.0 at 75°F, 5.4 at 40°F mean temperature per 1" thickness (hr x ft^2 x °F/Btu)

Caution

This product will ignite if exposed to fire of sufficient heat and intensity. See the conditions of use section of the code evaluation reports for specific applications.

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. 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 1-800-GET-PINK or access our Web site: www.owenscorning.com

Product Data

Foamular Insulation Product - 250 (25 psi)[1]

Material

Extruded polystyrene closed-cell foam panel with continuous skins on face and back surfaces

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.

Thickness[2] (in)	Width x Length[3] (in)	Edges
1, 1½, 2, 2½, 3	16 x 96	Square
¾, 1, 1½, 2, 2½, 3, 3½, 4	24 x 96	Square
¾, 1, 1½, 2, 2½, 3	48 x 96	Square
¾, 1	48 x 108	Square
¾, 1, 1½, 2, 2½, 3	48 x 96	Scored Square
¾, 1, 1½, 2	24 x 96	T&G[4]
¾, 1, 1½, 2	48 x 96	T&G[4]
¾, 1	48 x 108	T&G[4]

[1]Compressive strength, minimum (specification) value (lb/in^2)
[2]"R" per inch: 5.0 (at 75°F mean temperature)
[3]Other sizes available on request. Consult your local Owens Corning representative for availability.
[4]Tongue-and-groove edge reduces air infiltration

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