



INNOVATIONS FOR LIVING™

# FOAMULAR® 150 Rigid Foam Insulation

## Product Data Sheet



### Description

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

Owens Corning FOAMULAR 150 extruded polystyrene insulation is ideal for wall furring, perimeter/ foundation, cavity wall, crawl-space, pre-cast concrete, under slab, sheathing and other applications. Owens Corning's patented Hydrovac® process technology makes the unique closed-cell structure of FOAMULAR insulation highly resistant to moisture, retaining its long term R-value\* year after year – even following prolonged exposure to water leakage, humidity, condensation, groundwater and freeze/thaw cycling.

### Performance Benefits

- High R-value (R-5 per inch of product thickness).\*
- Compressive strength of 15 psi.
- Effective resistance against moisture, mildew, corrosion and rot.
- Ease of handling and installation (lightweight, tough, rigid foam panels).

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

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

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

### Product Applications

High-performance FOAMULAR 150 works to:

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

### Typical Physical Properties<sup>1</sup>

| Property   | Test Method <sup>2</sup> | Value                  |
|--|--------------------------|------------------------|
| Thermal conductivity - "k" <sup>3</sup><br>(Btu x in/hr x ft <sup>2</sup> x °F)<br>@ 75°F mean temperature<br>@ 40°F mean temperature  | ASTM C 518               | 0.20<br>0.18           |
| Thermal Resistance - "R", minimum<br>(°F x ft <sup>2</sup> x h/btu)<br>@ 75°F mean temperature<br>@ 40°F mean temperature<br><br>(K x m <sup>2</sup> /W)<br>@ 75°F mean temperature<br>@ 40°F mean temperature | ASTM C 518               |                        |
| Compressive Strength, minimum (lb/in <sup>2</sup> ) <sup>4</sup>   | ASTM D 1621              | 15.0                   |
| Flexural Strength (lb/in <sup>2</sup> min) <sup>5</sup>  | ASTM C 203               | 60                     |
| Water Absorption (% by volume max) <sup>6</sup>  | ASTM C 272               | 0.10                   |
| Water Vapor Permeance (perm max) <sup>7</sup>  | ASTM E 96                | 1.1                    |
| Water Affinity   | —                        | hydrophobic            |
| Water Capillarity  | —                        | none                   |
| Dimensional Stability (% linear change max) <sup>8</sup>   | ASTM D 2126              | 2.0                    |
| Linear Coefficient of thermal expansion (in/in/°F max)   | —                        | 2.7 x 10 <sup>-5</sup> |
| Flame Spread <sup>9,10</sup>   | ASTM E 84                | 5                      |
| Smoke Developed <sup>9,10,11</sup>   | ASTM E 84                | 45-175                 |
| Oxygen index min <sup>9</sup>  | ASTM D 2863              | 24                     |

<sup>1</sup>Properties shown are representative values for 1" thick material based upon most recent product quality audit data.

<sup>2</sup>Modified as required to meet ASTM C578.

<sup>3</sup>Thermal resistance (R) – (hr. x ft.<sup>2</sup> x °F/Btu) – of a 1" thickness at 5.0 (at 75°F mean temperature), 5.4 (at 40°F).

<sup>4</sup>Value at yield or 10% deflection, whichever occurs first.

<sup>5</sup>Value at yield or 5%, whichever occurs first.

<sup>6</sup>Data ranges from 0.00 to value shown due to the level of precision of the test method.

<sup>7</sup>Actual water vapor permeance data decreases as thickness increases.

<sup>8</sup>Data ranges from 0.0 to value shown.

<sup>9</sup>These laboratory tests are not intended to describe the hazard presented by this material under actual fire conditions.

<sup>10</sup>Data from Underwriters Laboratories, Inc®. classified. See Classification Certificate U-197.

<sup>11</sup>ASTM E84 is thickness-dependent, therefore a range of values is given.



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### 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 X
- Underwriters Laboratories, Inc.®, Classification Certificate U-197
- Thermal resistance: 5.0 at 75°F, 5.4 at 40°F mean temperature per 1" thickness (hr x ft<sup>2</sup> 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 non-structural material and must be installed on framings which are independently structurally adequate to meet required construction and service loading conditions.

### Caution

This product will ignite if exposed to fire of sufficient heat and intensity. During shipping, storage,

installation and use, this product should not be exposed to open flame or other ignition sources. See the conditions of use section of the code evaluation reports for specific applications.

### Note

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

### Product Data

Foamular Insulation Product - 150 (15 psi)<sup>1</sup>

#### Material

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

#### Weight

Approximately 120-130 lb/1,000 ft<sup>2</sup> for 1" thickness

#### Packaging

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

| Thickness <sup>2</sup> (in) | Width x Length <sup>3</sup> (in) | Edges            |
|-----------------------------|----------------------------------|------------------|
| 1, 1½, 2, 2½, 3             | 16 x 96                          | Square           |
| 1, 1½, 2, 2½, 3, 3½         | 24 x 96                          | Square           |
| 1, 1½, 2, 2½, 3             | 48 x 96                          | Square           |
| 1                           | 48 x 108                         | Square           |
| 1, 1½, 2, 2½, 3             | 48 x 96                          | Scored Square    |
| 1, 1½, 2                    | 24 x 96                          | T&G <sup>4</sup> |
| 1, 1½, 2                    | 48 x 96                          | T&G <sup>4</sup> |
| 1                           | 48 x 96                          | T&G <sup>4</sup> |

<sup>1</sup>Compressive strength, minimum (specification) value (lb/in<sup>2</sup>)

<sup>2</sup>"R" per inch: 5.0 (at 75°F mean temperature)

<sup>3</sup>Other sizes available on request. Consult your local Owens Corning representative for availability.

<sup>4</sup>Tongue-and-groove edge reduces air infiltration



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