



INNOVATIONS FOR LIVING™

# FOAMULAR® Extruded Polystyrene Insulation

## Commercial Product Directory of Availability and Physical Properties

### Product Data Sheet

**There's a type and size of FOAMULAR insulation for every application**

#### Applications

- Masonry cavity walls
- Wall furring to interior masonry/concrete walls
- Masonry veneer/steel stud wall systems
- Tilt-up concrete panels
- Below-grade exterior foundations
- Poured-in-place concrete wall systems
- Precast concrete
- Under concrete slabs
- Plaza and parking decks
- Commercial roofing systems
- Recover board
- Cold storage facilities
- Below-grade waterproofing
- Frost heave protection
- Agricultural housing
- RV/mobile homes
- Exterior insulation and finishing systems
- Insulating sheathing

#### Also Available

- FoamSealR™ sill plate gasket
- raft-R-mate® attic rafter vents
- FANFOLD foundation protection board
- BILD-R-TAPE® construction tape

#### Product Data

Material: Extruded polystyrene closed-cell foam panel with continuous skin on face and back surface. FOAMULAR insulation is produced by Owens Corning's patented Hydrovac® process technology under conditions of strict quality control.

#### Packaging

Shipped in units (typically 3,072 board-feet per unit) with two stretch-wrap bands per bundle.

#### Caution

Combustible. Although it does contain a flame-retardant additive to inhibit ignition from small fire sources, if exposed to fire of sufficient heat and intensity, FOAMULAR insulation will ignite. Do not expose the product to open flame during shipping, storage, installation or use. In most applications, a code-compliant thermal barrier must be used to separate FOAMULAR insulation from the building interior. See "conditions for use" section of ICC ES Reprt 96-24 for application covering recommendations.

#### Product Availability

| Insulation Product                          | Thickness <sup>1</sup> (in) | Width x Length <sup>2</sup> (in) | Edges            | Weight (approx. lb/1,000 ft <sup>2</sup> for 1" thickness) |
|---------------------------------------------|-----------------------------|----------------------------------|------------------|------------------------------------------------------------|
| FOAMULAR 150<br>(15 psi) <sup>3</sup>       | 1, 1½, 2, 2½, 3             | 16 x 96                          | Square           | 120-130                                                    |
|                                             | 1, 1½, 2, 2½, 3, 3½         | 24 x 96                          |                  |                                                            |
|                                             | 1, 1½, 2, 2½, 3             | 48 x 96                          |                  |                                                            |
|                                             | 1                           | 48 x 108                         |                  |                                                            |
| FOAMULAR 150<br>(15 psi) <sup>3</sup>       | 1, 1½, 2, 2½, 3             | 48 x 96                          | Scored Square    |                                                            |
| FOAMULAR 150<br>(15 psi) <sup>3</sup>       | 1, 1½, 2                    | 24 x 96                          | T&G <sup>4</sup> |                                                            |
|                                             | 1, 1½, 2                    | 48 x 96                          |                  |                                                            |
|                                             | 1                           | 48 x 108                         |                  |                                                            |
| FOAMULAR 250<br>(25 psi) <sup>3</sup>       | 1, 1½, 2, 2½, 3             | 16 x 96                          | Square           | 150                                                        |
|                                             | ¾, 1, 1½, 2, 2½, 3, 3½, 4   | 24 x 96                          |                  |                                                            |
|                                             | ¾, 1, 1½, 2, 2½, 3          | 48 x 96                          |                  |                                                            |
|                                             | ¾, 1                        | 48 x 108                         |                  |                                                            |
| FOAMULAR 250<br>(25 psi) <sup>3</sup>       | ¾, 1, 1½, 2, 2½, 3          | 48 x 96                          | Scored Square    |                                                            |
| FOAMULAR 250<br>(25 psi) <sup>3</sup>       | ¾, 1, 1½, 2                 | 24 x 96                          | T&G <sup>4</sup> |                                                            |
|                                             | ¾, 1, 1½, 2                 | 48 x 96                          |                  |                                                            |
|                                             | ¾, 1                        | 48 x 108                         |                  |                                                            |
| FOAMULAR 400<br>(40 psi) <sup>3</sup>       | 1½, 2, 2½, 3, 3½, 4         | 24 x 96                          | Square           | 200                                                        |
| FOAMULAR 600<br>(60 psi) <sup>3</sup>       | 1½, 2, 2½, 3                | 24 x 96                          | Square           | 240                                                        |
| FOAMULAR Half-inch<br>(18 psi) <sup>3</sup> | ½                           | 24 x 96, 48 x 96 or 108          | Square           | 150                                                        |
| AGTEK®                                      | 1, 1½                       | 48 x 200-318                     | Ship-lap         | 150                                                        |
| DURAPINK®                                   | ½, ¾, 1                     | 48 x 96                          | Square           | 150                                                        |
| INSUL-DRAIN®                                | 1, 1½, 2¼                   | 48 x 96                          | T&G <sup>4</sup> | 165                                                        |
| THERMAPINK® 18                              | 1, 1½, 2, 3                 | 48 x 96                          | Square           | 150                                                        |

<sup>1</sup>"R" per inch: 5.0 (at 75°F mean temperature). Nominal ½" film-faced insulating sheathing R-3.0 @ 75°F mean temperature

<sup>2</sup>Other sizes available on request. Consult your local Owens Corning representative for availability.

<sup>3</sup>Compressive strength, minimum (specification) value (lb/in<sup>2</sup>)

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

Note: All products in every size described here may not be available in all geographic markets. For information about non-standard products, consult a local sales office or representative.



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Grinding, sawing or fabricating can produce dust particles which may be irritating to eyes, nose and throat. Avoid buildup of dusts. Certain conditions form explosive dust atmospheres that can be ignited. Ensure adequate ventilation.

When installing the THERMAPINK® insulation in the steel deck roof assemblies, see special instructions for installation directly over the steel decking. During shipping, storage, installation and use, this product should not be exposed to open flame of other ignition

sources. See other FOAMULAR installation literature for more detailed product and application data.

### Typical Physical Properties

| Property                                                                                                                                   | Test Method <sup>2</sup> | Product/Values         |                        |                        |                        |                        |                        |                        |                        |                        |      |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------|
|                                                                                                                                            |                          | FOAMULAR 150           | FOAMULAR 250           | FOAMULAR 400           | FOAMULAR 600           | FOAMULAR Half-inch     | AGTEK                  | DURAPINK               | INSUL-DRAIN            | THERMAPINK 18          |      |
| Thermal conductivity - "k"<br>(Btu x in/hr x ft <sup>2</sup> x °F, max) <sup>3</sup><br>@ 75°F mean temperature<br>@ 40°F mean temperature | ASTM C 518               | 0.20                   | 0.20                   | 0.20                   | 0.20                   | 0.20                   | 0.20                   | 0.20                   | 0.20                   | 0.20                   | 0.20 |
|                                                                                                                                            |                          | 0.18                   | 0.18                   | 0.18                   | 0.18                   | 0.18                   | 0.18                   | 0.18                   | 0.18                   | 0.18                   | 0.18 |
| Compressive Strength, minimum value (lb/in <sup>2</sup> ) <sup>4</sup>                                                                     | ASTM D 1621              | 15.0                   | 25.0                   | 40.0                   | 60.0                   | 18.0                   | 25.0                   | 25.0                   | 25                     | 18.0                   |      |
| Flexural Strength (lb/in <sup>2</sup> , min.) <sup>5</sup>                                                                                 | ASTM C 203               | 60                     | 75                     | 115                    | 140                    | —                      | 75                     | 75                     | 75                     | 60                     |      |
| Water Absorption (% by volume, max.) <sup>6</sup>                                                                                          | ASTM C 272               | 0.10                   | 0.10                   | 0.05                   | 0.05                   | 0.10                   | 0.10                   | 0.10                   | 0.10                   | 0.10                   |      |
| Water Vapor Permeance (perm, max.) <sup>7</sup>                                                                                            | ASTM E 96                | 1.10                   | 1.10                   | 1.10                   | 1.10                   | 1.10                   | 1.20                   | 1.10                   | 1.10                   | 1.10                   |      |
| Water Affinity                                                                                                                             | —                        | —                      | —                      | —                      | hydrophobic            | —                      | —                      | —                      | —                      | —                      |      |
| Water Capillarity                                                                                                                          | —                        | —                      | —                      | —                      | none                   | —                      | —                      | —                      | —                      | —                      |      |
| Dimensional Stability (% linear change, max.) <sup>8</sup>                                                                                 | ASTM D 2126              | 2.0                    | 2.0                    | 2.0                    | 2.0                    | 2.0                    | 2.0                    | 2.0                    | 2.0                    | 2.0                    |      |
| Linear Coefficient of Thermal Expansion (in/in°F, max)                                                                                     | —                        | 2.7 x 10 <sup>-5</sup> | 2.7 x 10 <sup>-5</sup> | 2.7 x 10 <sup>-5</sup> | 2.7 x 10 <sup>-5</sup> | 2.7 x 10 <sup>-5</sup> | 2.7 x 10 <sup>-5</sup> | 2.7 x 10 <sup>-5</sup> | 2.7 x 10 <sup>-5</sup> | 2.7 x 10 <sup>-5</sup> |      |
| Flame Spread <sup>9,10</sup>                                                                                                               | ASTM E 84                | 5                      | 5                      | 5                      | 5                      | 5                      | 5                      | 5                      | 5                      | 5                      |      |
| Smoke Developed <sup>9,10,11</sup>                                                                                                         | ASTM E 84                | 45-175                 | 45-175                 | 45-175                 | 45-175                 | 45-175                 | 45-175                 | 45-175                 | 45-175                 | 45-175                 |      |
| Oxygen index, min. <sup>9</sup>                                                                                                            | ASTM D 2863              | 24                     | 24                     | 24                     | 24                     | 24                     | 24                     | 24                     | 24                     | 24                     |      |
| Type Classifications                                                                                                                       | ASTM C 578               | Type X                 | Type IV                | Type VI                | Type VII               | —                      | Type IV                | Type IV                | Type IV                | Type X                 |      |

<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 5.0 (at 75°F mean temperature), 5.4 (at 40°F mean temperature).

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

<sup>5</sup>Value at 5% 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 0.00 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 E 84 is thickness-dependent, therefore a range of values is given.

\*Minimum foam core value



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