Styrofoam™ Brand Ribbed Roofmate™
Extruded Polystyrene Foam Insulation

Ribbed Roof Insulation for Enhanced Drainage in Protected Membrane Systems

FEATURES/BENEFITS

Description
Styrofoam™ Brand Ribbed Roofmate™ Extruded Polystyrene Foam Insulation* is designed for use above waterproofing membrane in protected membrane systems (PMR) that include pavers or patio stones as primary ballast. It helps the roof membrane maintain a steady temperature, minimizing the harmful effects of freeze-thaw cycles, weathering and physical damage during and after construction.

In paver/patio stone applications, it is recommended that a drainage layer, which normally takes the form of a paver/pedestal arrangement, be incorporated between the insulation and ballast to facilitate moisture dissipation. However, Styrofoam™ Brand Ribbed Roofmate™ Insulation incorporates ribs on the upper surface extending the length of the panels with drainage channels incorporated into the lower side edges, eliminating the need for expensive pedestals.

Sustainable Solutions
Styrofoam™ Brand Ribbed Roofmate™ Insulation is hydrochlorofluorocarbon (HCFC) free with zero ozone-depletion potential. Styrofoam™ Brand Ribbed Roofmate™ Insulation is reusable in many applications.

Ease of Installation
Styrofoam™ Brand Ribbed Roofmate™ Insulation is:
• Strong, yet lightweight
• Easy to fabricate into various sizes and shapes to meet specific design needs
• Suited for Protected Membrane Roofs (PMR) and Inverted Roofs
• Ribbed along its surface, eliminating the need for pedestals
• Water and rot resistant – ideal for insulating green roofs
• Reusable

Available Sizes
Styrofoam™ Brand Ribbed Roofmate™ Insulation is available with a nominal board thickness of 2 in., 2’ x 8’ board size and an R-value of 10.0.* The board edges are ribbed, forming a channel for improved drainage.

PROPERTIES

Styrofoam™ Brand Ribbed Roofmate™ Insulation exhibits physical properties as indicated in Table 1 when tested as represented. Review all instructions and (Material) Safety Data Sheet ((M)SDS) before use. Please contact DuPont at 1-866-583-2583 when additional guidance is required for writing specifications that include this product.

* Styrofoam™ Brand Ribbed Roofmate™ Extruded Polystyrene Foam Insulation is a former product of The Dow Chemical Company.
** Aged R-value at 70°F mean temperature. R-value expressed in R²·ft²·°F/Btu. R-value determined by ASTM C518 using the aging process in ASTM C1289 (90 days @ 140°F).
### TABLE 1: Physical Properties™ of Styrofoam™ Brand Ribbed Roofmate™ Insulation

<table>
<thead>
<tr>
<th>Property and Test Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Resistance per inch, ASTM C518 @ 75°F mean temp., ft²•h•°F/Btu, R-value(1), min.</td>
<td>5.0</td>
</tr>
<tr>
<td>Compressive Strength(2), ASTM D1621, psi, min.</td>
<td>40</td>
</tr>
<tr>
<td>Flexural Strength, ASTM C203, psi</td>
<td>5.5</td>
</tr>
<tr>
<td>Water Absorption, ASTM C272, % by volume, max.</td>
<td>0.3</td>
</tr>
<tr>
<td>Water Vapor Permeance(3), ASTM E96, perm, max.</td>
<td>1.0</td>
</tr>
<tr>
<td>Maximum Use Temperature, °F</td>
<td>165</td>
</tr>
<tr>
<td>Coefficient of Linear Thermal Expansion, ASTM D696, in/in•°F</td>
<td>3.5 x 10⁻⁵</td>
</tr>
<tr>
<td>Flexural Strength, ASTM C203, psi, min</td>
<td>60</td>
</tr>
<tr>
<td>Dimensional Stability, ASTM D2126, % linear change, max.</td>
<td>2.0</td>
</tr>
<tr>
<td>Surface Burning Characteristics(4), ASTM E84, Flame Spread Index</td>
<td>15</td>
</tr>
<tr>
<td>Smoke Developed Index</td>
<td>165</td>
</tr>
</tbody>
</table>

1. R means resistance to heat flow. The higher the R-value, the greater the insulating power.
2. Vertical compressive strength measured at 10 percent deformation or at yield, whichever occurs first. Adequate design safety factors should be used to prevent long-term creep. Contact DuPont for design recommendations. When placing a load over the surface of the product, the compressive strength should be multiplied by 0.52 to account for the surface area lost due to channels cut into the foam surface.
3. Based on 1” thickness.
4. This numerical flame spread rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

**TESTING**

**Applicable Standards**

Styrofoam™ Brand Ribbed Roofmate™ Insulation meets ASTM C578, Type VI – Standard Specification for Rigid Cellular Polystyrene Thermal Insulation. Applicable standards include:

- **D1621** – Standard Test Method for Compressive Properties of Rigid Cellular Plastics
- **D2842** – Standard Test Method for Water Absorption of Rigid Cellular Plastics
- **C272** – Standard Test Method for Water Absorption of Core Materials for Structural Sandwich Constructions
- **E96** – Standard Test Methods for Water Vapor Transmission of Materials
- **E84** – Standard Test Method for Surface Burning Characteristics of Building Materials
- **C203** – Standard Test Method for Breaking Load and Flexural Properties of Block-Type Thermal Insulation
- **D2126** – Standard Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging

**Notice**

Styrofoam™ Brand Ribbed Roofmate™ Insulation complies with the following codes:

- Meets IBC/IRC requirements for foam plastic insulation; see ICC-ES ESR 2142
- ICBO-ES ER-2257
- BOCA-ES RR 21-02
- Underwriters Laboratories, Inc.(UL) Classified, see Classification Certificate D369
- Factory Mutual Approved – Subject to conditions of approval as a roof insulation when installed as described in the current edition of FM Approval Code.

**Warranty**

In the United States, a 50-year thermal limited warranty is available on Styrofoam™ Insulation products 1.5 inches and greater. For thickness less than 1.5 inches, other warranties may apply. Visit building.dupont.com/warranties or contact your DuPont representative for details.
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CAUTION: This product is combustible. Protect from high heat sources. A protective barrier or thermal barrier may be required as specified in the appropriate building code. For more information, consult MSDS or contact your local building inspector.

WARNING: Rigid foam insulation does not constitute a working walkable surface or qualify as a fall protection product.

Handing

**WARNING: For Professional Use Only** – Read and follow the entire Handling section and the Safety Data Sheets (SDSs, formerly MSDSs or Material Safety Data Sheets) carefully before use. The information below is designed to protect the user and allow for safe use and handling of Styrofoam™ Brand products.

**Precautionary Statements**
- Due to the critical technical design aspects of many of its applications, DuPont recommends that qualified designers or consultants design your system. Contact a local DuPont representative at 1-866-583-2583 for more specific instructions.
- **Styrofoam™ Brand Ribbed Roofmate™ Insulation** is combustible; protect from high heat sources.
- A protective barrier or thermal barrier may be required as specified in the appropriate building code. For more information, consult MSDS or contact your local building inspector.
- Follow all applicable federal, state, local and employer regulations.

**Shelf Life and Storage**
When stored outdoors, keep insulation boards tarped or covered to protect from weather and weighted down to prevent boards from being blown around by the wind. Store above standing water.

**Disposal**
Dispose of any residual Styrofoam™ Brand product, coated debris, or solvent in accordance with applicable federal, state, and local government regulations.

For more information visit us at styrofoam.com/roofmate or call 1-866-583-2583

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