STYROFOAM™ Brand DECKMATE™ Extruded Polystyrene Foam Insulation

1. PRODUCT NAME
STYROFOAM™ Brand DECKMATE™
Extruded Polystyrene Foam Insulation

2. MANUFACTURER
The Dow Chemical Company
Dow Building Solutions
200 Larkin Midland, MI 48674
1-866-583-BLUE (2583)
Fax 1-989-832-1465
www.dowbuildingsolutions.com

3. PRODUCT DESCRIPTION
STYROFOAM™ Brand DECKMATE™
Insulation is an extruded polystyrene foam insulation with a planed surface. It has excellent insulating characteristics, high resistance to water and water vapor, excellent freeze-thaw resistance, exceptional compressive strength and long-term durability.

Basic Use
STYROFOAM™ Brand DECKMATE™ Insulation is designed for use in fully adhered conventional low-slope roof applications. Available in flat and tapered board stock (see Table 3 for slopes of tapered panels), the rigid foam insulation boards can be installed directly on structural steel decks beneath a non-bituminous sheet membrane, eliminating the need for a thermal barrier.

4. TECHNICAL DATA
Applicable Standards
STYROFOAM™ Brand DECKMATE™ Insulation meets CAN/ULC S701, Type 3 – Standard Specification for Rigid Cellular Polystyrene Thermal Insulation, which includes:
• D1621 – Standard Test Method for Compressive Properties of Rigid Cellular Plastics
• E96 – Standard Test Methods for Water Vapor Transmission of Materials
• C203 – Standard Test Methods 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
• D2842 – Standard Test Method for Water Absorption of Rigid Cellular Plastics

Physical Properties
STYROFOAM™ Brand DECKMATE™ Insulation exhibits physical properties as indicated in Table 2 when tested as represented.

Environmental Data
STYROFOAM™ Brand DECKMATE™ Insulation is hydrochlorofluorocarbon (HCFC) free with zero ozone-depletion potential.

STYROFOAM™ Brand DECKMATE™ Insulation is reusable in many applications.

### TABLE 1: Sizes, R-Values and Edge Treatments for STYROFOAM™ Brand DECKMATE™ Extruded Polystyrene Foam Insulation

<table>
<thead>
<tr>
<th>Nominal Board Thickness (in.)</th>
<th>R-Value</th>
<th>Board Size (ft.)</th>
<th>Edge Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 (25)</td>
<td>5.0</td>
<td>24 x 96</td>
<td>Shiplap Edge</td>
</tr>
<tr>
<td>1.5 (40)</td>
<td>7.5</td>
<td>24 x 96</td>
<td>Shiplap Edge</td>
</tr>
<tr>
<td>2.0 (50)</td>
<td>10.0</td>
<td>24 x 96</td>
<td>Shiplap Edge</td>
</tr>
<tr>
<td>2.5 (65)</td>
<td>12.5</td>
<td>24 x 96</td>
<td>Shiplap Edge</td>
</tr>
<tr>
<td>3.0 (75)</td>
<td>15.5</td>
<td>24 x 96</td>
<td>Shiplap Edge</td>
</tr>
<tr>
<td>4.0 (100)</td>
<td>20.0</td>
<td>24 x 96</td>
<td>Shiplap Edge</td>
</tr>
</tbody>
</table>

(1) Not all product sizes are available in all regions.
5. INSTALLATION

STYROFOAM™ Brand DECKMATE™ Insulation can be used over any substrate in new construction or thermal upgrading of existing roofing when reroofing is required. Roof substrate must be clean, dry, smooth and free from oil, grease, rust, frost and snow.

The roof system must be designed to meet all applicable building codes. Flute spanability – maximum flute spanability is 1-3/4” for 1” product, 3” for 1-1/2” product, 4-3/8” for 2” product or greater.

6. AVAILABILITY

STYROFOAM™ Brand DECKMATE™ Insulation is manufactured in several locations across North America and is distributed through an extensive network of roofing distributors. For more information, call:
- 1-800-232-2436 (English)
- 1-800-565-1255 (French)

7. MAINTENANCE

Not applicable.

8. TECHNICAL SERVICES

Dow can provide technical information to help address questions when using STYROFOAM™ Brand DECKMATE™ Plus FA Foam Insulation. Technical personnel are available to assist with any insulation project. For technical assistance, call:
- 1-866-583-BLUE (2583) (English)
- 1-800-363-6210 (French)

9. FILING SYSTEMS

www.dowbuildingsolutions.com

**Table 2: Physical Properties of STYROFOAM™ Brand DECKMATE™ Extruded Polystyrene Foam Insulation**

<table>
<thead>
<tr>
<th>Property and Test Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Resistance per in. (25 mm), ASTM C518 @ 75°F (24°C)</td>
<td>5.0 (0.88)</td>
</tr>
<tr>
<td>Compressive Strength(1), ASTM D1621, psi (kPa), min.</td>
<td>16 (116)</td>
</tr>
<tr>
<td>Water Absorption, ASTM D2842, % by volume, max.</td>
<td>0.9</td>
</tr>
<tr>
<td>Water Absorption, ASTM C272, % by volume, max.</td>
<td>0.3</td>
</tr>
<tr>
<td>Water Vapour Permeance(1), ASTM E96, perm (ng/Pa•s•m²), max.</td>
<td>1.5 (90)</td>
</tr>
<tr>
<td>Maximum Use Temperature, °F (°C)</td>
<td>165 (74)</td>
</tr>
<tr>
<td>Coefficient of Linear Thermal Expansion, in/in•°F (mm/m•°C)</td>
<td>3.5 x 10^{-5} (6.3 x 10^{-5})</td>
</tr>
<tr>
<td>Flexural Strength, ASTM C203, psi (kPa) min.</td>
<td>35 (244)</td>
</tr>
<tr>
<td>Dimensional Stability(4), ASTM D2126, % linear change, max.</td>
<td>1.5</td>
</tr>
</tbody>
</table>

(1) R means resistance to heat flow. The higher the R-value or RSI, the greater the insulating power.
(2) Vertical compressive strength is measured at 10 percent deformation or at yield, whichever occurs first.
(3) Based on 1” (25 mm) thickness.
(4) RSI is a measure of the overall resistance to heat flow of a system. It takes into account all components of the building envelope, not just the insulation.

**NOTICE:** No freedom from infringement of any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer’s use and for ensuring that Customer’s workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where Dow is represented. The claims made may not have been approved for use in all countries. Dow assumes no obligation or liability for the information in this document. References to “Dow” or the “Company” mean the Dow legal entity selling the products to Customer unless otherwise expressly noted. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

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, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector.

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