STYROFOAM™ Brand CAVITYMATE™ Extruded Polystyrene Foam Insulation

1. PRODUCT NAME
STYROFOAM™ Brand CAVITYMATE™ 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
Basic Use
STYROFOAM™ Brand CAVITYMATE™ Extruded Polystyrene Foam Insulation is a moisture-resistant, durable and lightweight foam board designed specifically for use in wet cavity wall environments. Sized to fit snugly between wall ties, STYROFOAM™ Brand CAVITYMATE™ Insulation saves time and money on the job site. Its closed-cell structure provides exceptional long-term thermal performance and moisture control.

4. TECHNICAL DATA
Applicable Standards
STYROFOAM™ Brand CAVITYMATE™ Insulation meets ASTM C578 – 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
• D696 – Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30°C and 30°C with a Vitreous Silica Dilatometer
• 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
• CAN/ULC S701 Type 3

Physical Properties
STYROFOAM™ Brand CAVITYMATE™ Insulation exhibits the properties and characteristics indicated in Tables 3 and 4 when tested as represented.

Environmental Data
STYROFOAM™ Brand CAVITYMATE™ Insulation is hydrochlorofluorocarbon (HCFC) free with zero ozone-depletion potential. STYROFOAM™ Brand CAVITYMATE™ Insulation is reusable in many applications.

Fire Protection
STYROFOAM™ Brand CAVITYMATE™ Insulation is combustible; protect from high heat sources. Local building codes may require a protective or thermal barrier. For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector.

Code Compliances
STYROFOAM™ Brand CAVITYMATE™ Insulation complies with the following codes:
• International Residential Code (IRC) and International Building Code (IBC); see ICC-ES ESR 2142, BOCA-ES RR 21-02
• Underwriters Laboratories, Inc. (UL) Classified, see Classification Certificate D369
• CCMC Evaluation Listing 11420-L

Contact your Dow sales representative or local authorities for state and local building code requirements and related acceptances.

5. INSTALLATION
Boards of STYROFOAM™ Brand CAVITYMATE™ Insulation are easy to handle, cut and install. Contact a local Dow representative or access the literature library at www.dowbuildingsolutions.com for more specific instructions.

<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</td>
<td>5.0</td>
<td>16 x 96</td>
<td>Butt Edge</td>
</tr>
<tr>
<td>1.5</td>
<td>7.5</td>
<td>16 x 96</td>
<td>Butt Edge</td>
</tr>
<tr>
<td>2.0</td>
<td>10.0</td>
<td>16 x 96</td>
<td>Butt Edge</td>
</tr>
<tr>
<td>3.0</td>
<td>15.0</td>
<td>16 x 96</td>
<td>Butt Edge</td>
</tr>
</tbody>
</table>

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

(2) Aged R-value at 1" of cured foam @ 75°F mean temperature. R-value expressed in ft²•h•°F/Btu. R-value determined by ASTM C518 using the aging process in ASTM C1289 (90 days @ 140°F).

TABLE 2: Canadian Sizes, R-Values and Edge Treatments for STYROFOAM™ Brand CAVITYMATE™ Extruded Polystyrene Foam Insulation

<table>
<thead>
<tr>
<th>Nominal Board Thickness (mm)</th>
<th>R-Value</th>
<th>Board Size (mm)</th>
<th>Edge Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>7.9</td>
<td>400 x 2400, 600 x 2400</td>
<td>Butt Edge</td>
</tr>
<tr>
<td>50</td>
<td>10.0</td>
<td>400 x 2400, 600 x 2400</td>
<td>Butt Edge</td>
</tr>
<tr>
<td>61</td>
<td>12.0</td>
<td>400 x 2400, 600 x 2400</td>
<td>Butt Edge</td>
</tr>
<tr>
<td>75</td>
<td>15.0</td>
<td>400 x 2400, 600 x 2400</td>
<td>Butt Edge</td>
</tr>
<tr>
<td>100</td>
<td>20.0</td>
<td>100 x 600 x 2400</td>
<td>Butt Edge</td>
</tr>
<tr>
<td>50</td>
<td>10.0</td>
<td>400 x 2400, 600 x 2400</td>
<td>Shiplap</td>
</tr>
<tr>
<td>75</td>
<td>15.0</td>
<td>400 x 2400, 600 x 2400</td>
<td>Shiplap</td>
</tr>
<tr>
<td>100</td>
<td>20.0</td>
<td>100 x 600 x 2400</td>
<td>Shiplap</td>
</tr>
</tbody>
</table>

(1) Not all product sizes are available in all regions.
6. AVAILABILITY
STYROFOAM™ Brand CAVITYMATE™ Insulation is distributed through an extensive network. For product availability or for the name of your local Dow sales representative, call: 1-800-232-2436 (English) 1-800-565-1255 (French)

7. 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. Warranties are available as described at www.dbswarranties.com.

8. MAINTENANCE
Not applicable.

9. TECHNICAL SERVICES
Dow can provide technical information to help address questions about using STYROFOAM™ Brand CAVITYMATE™ 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)

10. FILING SYSTEMS
www.dowbuildingsolutions.com

**TABLE 3: Physical Properties (U.S.) of STYROFOAM™ Brand CAVITYMATE™ Extruded Polystyrene Foam Insulation**

<table>
<thead>
<tr>
<th>Property and Test Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Resistance(1) per in., ASTM C518 @ 75°F mean temp., ft²•h•°F/ Btu, R-value</td>
<td>5.0</td>
</tr>
<tr>
<td>Compressive Strength(2), ASTM D1621, psi, min.</td>
<td>15</td>
</tr>
<tr>
<td>Water Absorption, ASTM C272, % by volume, max.</td>
<td>0.3</td>
</tr>
<tr>
<td>Water Vapor Permeance(2), ASTM E96, perm, max.</td>
<td>1.5</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>40</td>
</tr>
</tbody>
</table>

(1) Values are consistent with the criteria of ASTM C578 and the requirements of the FTC R-value rule (16 CFR Part 480). R means resistance to heat flow. The higher the R-value, the greater the insulating power. Ask your seller for the fact sheet on R-value.

(2) Vertical compressive strength is measured at 10 percent deformation or at yield, whichever occurs first. Since STYROFOAM™ Brand Extruded Polystyrene Foam Insulations are visco-elastic materials, adequate design safety factors should be used to prevent long-term creep and fatigue deformation. For static loads, 3:1 is suggested. For dynamic loads, 10:1 is suggested.

(3) Based on 1" thickness.

**TABLE 4: Physical Properties (Canadian) of STYROFOAM™ Brand CAVITYMATE™ Extruded Polystyrene Foam Insulation**

<table>
<thead>
<tr>
<th>Property and Test Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Resistance(1) per in. (25 mm), ASTM C518, 24°C mean temp., ft²•h•°F/Btu (m²•°C/W), R-value (RSI), min.</td>
<td>5.0 (0.87)</td>
</tr>
<tr>
<td>Compressive Strength(2), ASTM D1621, psi (kPa), min.</td>
<td>25 (170)</td>
</tr>
<tr>
<td>Water Absorption, ASTM D2842, % by volume, max.</td>
<td>&lt;0.7</td>
</tr>
<tr>
<td>Water Vapour Permeance(2), 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, ASTM D696, in/in•°F (mm/mm•°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>43 (300)</td>
</tr>
</tbody>
</table>

(1) Values are consistent with criteria of ASTM C578.

(2) Vertical compressive strength is measured at 10 percent deformation or at yield, whichever comes first. Since STYROFOAM™ Brand Extruded Polystyrene Foam Insulations are visco-elastic materials, adequate design safety factors should be used to prevent long-term creep and fatigue deformation. For static loads, 3:1 is suggested. For dynamic loads, 10:1 is suggested.

(3) Based on 1" (25 mm) thickness.

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**DOW**

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Dow Building Solutions
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For Technical Information: dowbuildingsolutions.com

For Sales Information:

For French: 1-800-232-2436 (1-866-583-BLUE (2583))

For English: 1-800-363-6210 (1-800-363-6210 (French))

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This product is combustible. Protect from hot sources. A protective barrier or thermal barrier may be required as specified in the applicable building codes. For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada.

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

Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mold formation. No material supplier including Dow can give assurance that mold will not develop in any specific system.

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