

DuPont™ Styrofoam™ Brand Cavitymate™ XPS Foam Insulation

Durable, Moisture-Resistant, Cavity Wall Insulation

FEATURES/BENEFITS

Description

DuPont™ Styrofoam™ Brand Cavitymate™ Extruded Polystyrene (XPS) Foam Insulation* is a moisture-resistant, durable and lightweight extruded polystyrene foam board specifically designed for use in wet cavity wall environments in commercial applications.

The closed-cell structure of Styrofoam™ Brand Cavitymate™ Insulation boards ensures exceptional long-term thermal performance and high moisture resistance. Sized to fit snugly between wall ties, Styrofoam™ Brand Cavitymate™ Insulation is also easy to handle, cut and install, saving time and money on the job site.

Sustainable Solution

Styrofoam™ Brand Cavitymate™ Insulation is hydrochlorofluorocarbon (HCFC) free with zero ozone depletion potential. Styrofoam™ Brand insulation products produced in North America contain an average of 20% pre-consumer recycled content certified by UL Environment Inc.

Available Sizes

U.S. and Canadian sizes, R-values, and edge treatments can be found in Tables 1 and 2, respectively.

TABLE 1: U.S. Sizes, R-Values and Edge Treatments for Styrofoam™ Brand Cavitymate™ XPS Foam Insulation

| Nominal Board Thickness ⁽¹⁾ (in.) | R-Value ⁽²⁾ | Board Size (in.) | Edge Treatment |
|--|------------------------|------------------|----------------|
| 1.0 | 5.0 | 16 x 96 | Butt Edge |
| 1.5 | 7.5 | 16 x 96 | Butt Edge |
| 2.0 | 10.0 | 16 x 96 | Butt Edge |
| 3.0 | 15.0 | 16 x 96 | Butt Edge |

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·h²·°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™ XPS Foam Insulation

| Nominal Board Thickness ⁽¹⁾ (mm) | RSI (R-value) ⁽²⁾ | Board Size (mm) | Edge Treatment |
|---|------------------------------|------------------------|----------------|
| 40 | 1.40 (8) | 400 x 2400, 600 x 2400 | Butt Edge |
| 50 | 1.76 (10) | 400 x 2400, 600 x 2400 | Butt Edge |
| 61 | 2.11 (12) | 400 x 2400, 600 x 2400 | Butt Edge |
| 75 | 2.64 (15) | 400 x 2400, 600 x 2400 | Butt Edge |
| 100 | 3.52 (20) | 600 x 2400 | Butt Edge |
| 50 | 1.76 (10) | 400 x 2400, 600 x 2400 | Shiplap Edge |
| 75 | 2.64 (15) | 400 x 2400, 600 x 2400 | Shiplap Edge |
| 100 | 3.52 (20) | 600 x 2400 | Shiplap Edge |

¹ Not all product sizes are available in all regions.

² RSI or R-value means resistance to heat flow. The higher the RSI (R-Value), the greater the insulating power. R-values are expressed in ft²·h²·°F/Btu. RSI values are expressed in m²·C/W. RSI and R-value determined by ASTM C518.

PROPERTIES

DuPont™ Styrofoam™ Brand Cavitymate™ Extruded Polystyrene (XPS) Foam Insulation exhibits the properties and characteristics indicated in Tables 3 and 4 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.

TABLE 3: U.S. Physical Properties of Styrofoam™ Brand Cavitymate™ XPS Foam Insulation

| Test Method | Property | Typical Value | Units |
|-------------|---|------------------------|--|
| ASTM C518 | Thermal Resistance ⁽¹⁾ per inch (25 mm) @ 75°F mean temp. | 5.0 | ft ² ·h·°F/Btu, R-value, min. |
| ASTM D1621 | Compressive Strength ⁽²⁾ | 15 | psi, min. |
| ASTM C272 | Water Absorption | 0.1 | % by volume, max. |
| ASTM E96 | Water Vapor Permeance ⁽³⁾ | 1.5 | perm, max. |
| – | Maximum Use Temperature | 165 | °F |
| ASTM D696 | Coefficient of Linear Thermal Expansion | 3.5 x 10 ⁻⁵ | in/in·°F |
| ASTM C203 | Flexural Strength | 40 | psi, min. |
| ASTM E84 | Flame Spread ⁽⁴⁾ | 15 | |
| ASTM E84 | Smoke Developed | 165 | |
| ASTM E84 | Surface Burning Characteristics for both foam core and finished product | Class A | |
| | Flame Spread | <25 | |
| | Smoke Developed | <450 | |

¹ Values are consistent with the criteria of ASTM C578 and the requirements of the FTC R-value rule (16 CFR Part 460). 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.

⁴ These numerical flame-spread and smoke-developed ratings are not intended to reflect hazards presented by this or any other material under actual fire conditions.

TABLE 4: Canadian Physical Properties of Styrofoam™ Brand Cavitymate™ XPS Foam Insulation

| Test Method | Property | Typical Value | Units |
|----------------|--|---|---|
| ASTM C518 | Thermal Resistance per in. (25 mm) @ 75°F (24°C) mean temp. | 5.0 (.88) | ft ² ·h·°F/Btu (m ² ·°C/W), R-value (RSI) ¹ , min. |
| ASTM D1621 | Compressive Strength ⁽²⁾ | 16 (110) | psi (kPa), min. |
| ASTM D2842 | Water Absorption | 1.9 | % by volume, max. |
| ASTM E96 | Water Vapor Permeance ⁽³⁾ | 1.5 (90) | perm (ng/Pa·s·m ²), max. |
| – | Maximum Use Temperature | 165 (74) | °F (°C) |
| ASTM D696 | Coefficient of Linear Thermal Expansion | 3.5 x 10 ⁻⁵ (6.3 x 10 ⁻²) | in/in·°F (mm/m·°C) |
| ASTM C203 | Flexural Strength | 43 (300) | psi (kPa) min. |
| CAN/ULC S102.2 | Surface Burning Characteristics for both foam core and finished product ⁽⁴⁾ | | |
| | Flame Spread | <300 | |
| | Smoke Developed | <700 | |

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.

⁴ Tested per CAN/ULC S102.2. Refer to UL and CCMC listings for details on foam thickness and maximum density evaluated.

TESTING

Applicable Standards

Styrofoam™ Brand Cavitymate™ Insulation meets ASTM C578 – Standard Specification for Rigid Cellular Polystyrene Insulation. Applicable standards include:

- **C518** – Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
- **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**

Notice

DuPont™ 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 DuPont sales representative or local authorities for state and local building code requirements and related acceptances.

Warranty

In the United States, a 50-year thermal limited warranty is available on Styrofoam™ Brand insulation products 1.5 inches and greater. For thickness less than 1.5 inches, other warranties may apply. Visit building.dupont.com/warranties for more information.

HANDLING

WARNING: For Professional Use Only. Read and follow the entire Safety, Handling, and Storage 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 DuPont products. Follow all applicable federal, state, local and employer regulations.

Precautionary Statements

- **Styrofoam™ Brand Cavitymate™ Extruded Polystyrene (XPS) Foam 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, call DuPont at 1-866-583-2583 or contact your local building inspector.
- A light-colored, opaque protective covering should be used if excessive solar exposure is expected. Since dust would impair the performance of adhesives and finishes, dusty surfaces should be brushed off before products are applied.
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Shelf Life and Storage

When stored outdoors, keep insulation boards covered with white plastic film or light-colored tarps 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 DuPont product, coated debris, or solvent in accordance with applicable federal, state, and local government regulations.



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

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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 (Material) Safety Data Sheet ((M)SDS), call DuPont at 1-866-583-2583 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 DuPont can give assurance that mold will not develop in any specific system.

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