

DuPont™ Styrofoam™ Brand Roofmate™ Insulation

Water-Resistant Insulation for Protected Membrane Roofing Systems
Low-GWP Formulation

FEATURES/BENEFITS

Description

DuPont™ Styrofoam™ Brand Roofmate™ Insulation* is designed for installation above waterproofing or roofing membranes in protected membrane roof (PMR) or green roof applications.

Engineered for use on heavyweight decks (e.g. reinforced concrete) with a ballast layer of gravel or concrete slabs, Styrofoam™ Brand Roofmate™ helps the roof membrane maintain a steady temperature, minimizing the harmful effects of freeze-thaw cycles, weathering and physical damage during and after construction.

Sustainable Solutions

Styrofoam™ Brand Roofmate™ Insulation uses BluEdge™ technology. It is hydrochlorofluorocarbon (HCFC) free with zero ozone-depletion potential and is reusable in many applications.

Ease of Installation

Styrofoam™ Brand 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)
- Water and rot resistant – ideal for insulating green roofs
- Lined with 1/2" x 1/4" drainage channels on the bottom long edge
- Reusable

Available Sizes

Canadian sizes and thermal resistance values and edge treatments for Styrofoam™ Brand Roofmate™ Insulation can be found in Table 1.

TABLE 2: Canadian Sizes, Thermal Resistance Values and Edge Treatments for Styrofoam™ Brand Roofmate™ Insulation

Nominal Board Thickness ⁽¹⁾ mm (in.)	RSI (R-value) ⁽²⁾⁽³⁾	LTTR m ² *°C/W ⁽⁴⁾	Board Size mm (ft)	Edge Treatment
25 (1.0)	0.88 (5.0)	0.86	610 x 2440 (2 x 8)	Butt Edge
38 (1.5)	1.32 (7.5)		610 x 2440 (2 x 8)	Shi lap Edge
50 (2.0)	1.76 (10.0)	1.71	610 x 2440 (2 x 8)	Shi lap Edge
75 (3.0)	2.64 (15.0)	2.61	610 x 2440 (2 x 8)	Shi lap Edge
100 (4.0)	3.52 (20.0)		610 x 2440 (2 x 8)	Shi lap 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.

⁽³⁾ Thermal values are consistent with the criteria of ASTM C578 and are not assessed by the CCMC. Depending on the product, a 15-, 30- or 50- year limited thermal warranty is available.

⁽⁴⁾ Long Term Thermal Resistance (LTTR) values determined per CAN/ULC-S770.

PROPERTIES

DuPont™ Styrofoam™ Brand Roofmate™ Insulation exhibits physical properties as indicated in Table 2 when tested as represented. Review all instructions and (Material) Safety Data Sheet ((M)SDS) before use. Please contact DuPont at 1-833-338-7668 when additional guidance is required for writing specifications that include this product.

TABLE 4: Canadian Physical Properties of Styrofoam™ Brand Roofmate™ Insulation

Property and Test Method	Value
Compressive Strength ⁽²⁾ , ASTM D1621, psi, min.	35 (241)
Water Absorption, ASTM D2842, % by volume, max.	0.7
Water Vapour Permeance ⁽³⁾ , ASTM E96, perm (ng/Pa·s·m ²), max.	0.87 (50)
Maximum Use Temperature, °F (°C)	165 (74)
Coefficient of Linear Thermal Expansion, ASTM D696, in/in·°F (mm/m·°C)	3.5 x 10 ⁻⁵ (6.3 x 10 ⁻²)
Flexural Strength, ASTM C203, psi (kPa), min.	51 (352)
Dimensional Stability, ASTM D2126, at 158°F (70°C) ambient humidity, % linear change, max.	1.5
Surface Burning Characteristics ⁽⁴⁾ for Flame Spread Smoke Developed	<300 <700

⁽¹⁾ Values are consistent with criteria of CAN/ULC-S701.1.

⁽²⁾ Vertical compressive strength is measured at 10 percent deformation or yield, whichever occurs first. Since Styrofoam™ Brand XPS 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, 5:1 is suggested. Contact DuPont for design recommendations.

⁽³⁾ Based on 1" (25 mm) thickness.

⁽⁴⁾ Tested per CAN/ULC-S102.2. Refer to UL Directory for details on foam thickness and maximum density evaluated.

TESTING

Applicable Standards

Styrofoam™ Brand Roofmate™ Insulation meets CAN/ULC-S701.1 – STANDARD FOR THERMAL INSULATION, POLYSTYRENE BOARDS. 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
- **E96** – Standard Test Methods for Water Vapor Transmission of Materials
- **D696** – Standard Test Method for 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
- **CAN/ULC-S770** – Standard Method of Test for Determination of Long-Term Thermal Resistance of Closed-Cell Thermal Insulation Foams
- **CAN/ULC S102.2**

Notice

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

- CCMC Evaluation Listing 04888-L
- CAN/ULC S701.1-17 Type 4

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

Warranty

In Canada, a 50-year thermal limited warranty is available on Styrofoam™ 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.

HANDLING

WARNING: For Professional Use Only – Read and follow the entire Safety, Handling, and Storage section and Safe Handling document on [BeyondBlue.DuPont.com](https://www.beyondblue.dupont.com) 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 Roofmate™ Insulation is combustible; protect from high heat sources.
- A protective barrier or thermal barrier is required as specified in the appropriate building code. For more information, consult MSDS, call DuPont at 1-833-338-7668 or contact your local building inspector.
- Because of the critical technical design aspects of many of its applications, DuPont recommends that qualified designers or consultants design the system. Contact a local DuPont representative for more specific instruction.
- Cover exposed Styrofoam™ with a light opaque covering to protect from weather and sunlight. Do not use clear plastic covering.

Shelf Life and Storage

When stored outdoors, keep insulation boards covered with white plastic film or light-colored tarps 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](https://www.styrofoam.com)
or call 1-833-338-7668**

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DuPont™ Styrofoam™ Brand ST-100 Insulation

CAUTION: This product is combustible. Protect from high heat sources. A protective barrier or thermal barrier is required as specified in the appropriate building code. For more information call the DuPont Contact Center at 866-583-2583 or contact your local building inspector. For emergencies contact Chemtrec 800-424-9300, CCN (Contract Number) 7442.

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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