



DuPont™ Styrofoam™ Brand Deckmate™ XPS Foam Insulation

Durable Water and Freeze-Thaw Resistant Roof Insulation

FEATURES/BENEFITS

Description

DuPont™ Styrofoam™ Brand Deckmate™ Extruded Polystyrene (XPS) Foam Insulation* is an extruded polystyrene foam insulation designed for mechanically-fastened conventional low-slope roof applications. It has excellent insulating characteristics, high resistance to water and water vapor, excellent freeze-thaw resistance, exceptional compressive strength and long-term durability.

Ease of Installation

Styrofoam™ Brand Deckmate™ Insulation can be used over any substrate in new construction or thermal upgrading of existing roofing when reroofing is required. The rigid foam insulation boards can be installed directly on structural steel decks beneath a non-bituminous sheet membrane or on a standing seam metal roof, eliminating the need for a thermal barrier.

Styrofoam™ Brand Deckmate™ has:

- Specially designed smooth, high-density skins
- Excellent insulating characteristics
- High resistance to water and water vapor
- Excellent freeze-thaw resistance
- Excellent compressive strength
- Long-term durability

Available Sizes

Styrofoam™ Brand Deckmate™ Insulation is available in flat and tapered rigid board stock in a range of sizes and thicknesses, as shown in Table 1.

TABLE 1: Sizes, R-Values and Edge Treatments for Styrofoam™ Brand Deckmate™ XPS Foam Insulation

Nominal Board Thickness ⁽¹⁾ mm (in.)	RSI (R-value)	Board Size mm (in.)	Edge Treatment
25 (1.0)	0.88 (5.0)	610 x 2440 (2 x 8)	Shiplap Edge
40 (1.5)	1.32 (7.5)	610 x 2440 (2 x 8)	Shiplap Edge
50 (2.0)	1.76 (10.0)	610 x 2440 (2 x 8)	Shiplap Edge.
65 (2.5)	2.20 (12.5)	610 x 2440 (2 x 8)	Shiplap Edge.
75 (3.0)	2.64 (15.0)	610 x 2440 (2 x 8)	Shiplap Edge.
100 (4.0)	3.52 (20.0)	610 x 2440 (2 x 8)	Shiplap Edge.

¹ Not all product sizes are available in all regions.

Sustainable Solutions

Styrofoam™ Brand Deckmate™ Insulation uses BluEdge™ technology. It is hydrochlorofluorocarbon (HCFC) free with zero ozone depletion potential and is reusable in many applications. It also contains an average of 20% pre-consumer recycled content certified by UL Environment Inc.

PROPERTIES

Styrofoam™ Brand Deckmate™ 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 1-866-583-2583 when additional guidance is required for writing specifications that include this product.

* Styrofoam™ Brand Deckmate™ Insulation is a former product of The Dow Chemical Company.

TABLE 2: Physical Properties of Styrofoam™ Brand Deckmate™ XPS Foam Insulation

Property and Test Method	Value
Thermal Resistance per in. (25 mm), ASTM C518 @ 75°F (24°C) mean temp., ft ² ·h·°F/Btu (m ² ·°C/W), R-value (RSI) ⁽¹⁾ , min.	5.0 (0.88)
Compressive Strength ⁽²⁾ , ASTM D1621, psi (kPa), min.	16 (110)
Water Absorption, ASTM D2842, % by volume, max.	0.9
Water Absorption, ASTM C272, % by volume, max.	0.1
Water Vapour Permeance ⁽³⁾ , ASTM E96, perm (ng/Pa·s·m ²), max.	1.5 (90)
Maximum Use Temperature, °F (°C)	165 (74)
Coefficient of Linear Thermal Expansion, in/in·°F (mm/m·°C)	3.5 x 10 ⁻⁵ (6.3 x 10 ⁻²)
Flexural Strength, ASTM C203, psi (kPa) min.	35 (244)
Dimensional Stability ⁽⁴⁾ , ASTM D2126, % linear change, max.	1.5
Surface Burning Characteristics ⁽³⁾ , CAN/ULC S102.2 for both foam core and finished product ⁽⁴⁾	
Flame Spread	<300
Smoke Developed	<700

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

TESTING

Applicable Standards

DuPont™ Styrofoam™ Brand Deckmate™ Extruded Polystyrene (XPS) Foam Insulation meets CAN/ULC S701, Type 2 –Standard Specification for Rigid Cellular Polystyrene Thermal Insulation, which includes:

- **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
- **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

Notice

Styrofoam™ Brand Deckmate™ Insulation complies with the following codes:

- Factory Mutual Approved – Subject to conditions of approval as a roof insulation when installed as described in the current edition of FM Approval Guide
- National Building Code of Canada
- CCMC – Evaluation Listing #12085-L

HANDLING

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 DuPont products. Follow all applicable federal, state, local and employer regulations.

Precautionary Statements

- Before installation, roof substrate must be clean, dry, smooth and free from oil, grease, rust, frost and snow. Since dust would impair the performance of adhesives and finishes, dusty surfaces should be brushed off before products are applied.
- **Styrofoam™ Brand Deckmate™ 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.
- Exposure to ultraviolet radiation in sunlight for several weeks will cause the surface of **Styrofoam™ Brand Deckmate™** to become yellow and dusty. The surface degradation will have no measurable effect on the insulating value of the plastic foam unless the deterioration is allowed to continue until actual foam thickness is lost. A light-colored, opaque protective covering should be used if excessive solar exposure is expected.

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](https://www.styrofoam.com)
or call 1-833-338-7668**

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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 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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