

# DuPont™ Styrofoam™ Brand Wallmate™ XPS Foam Insulation

## Durable, Moisture-Resistant Basement Wall Insulation

### FEATURES/BENEFITS

#### Description

DuPont™ Styrofoam™ Brand Wallmate™ Extruded Polystyrene (XPS) Foam Insulation\* is a moisture-resistant, durable and lightweight extruded polystyrene foam board specifically designed to insulate basement walls from the inside.

Styrofoam™ Brand Wallmate™ Insulation resists moisture, keeping your basement comfortable all year long. It is quick and easy to install directly on masonry walls.

#### Sustainable Solutions

Styrofoam™ Brand Wallmate™ Insulation is hydrochloro-fluorocarbon (HCFC) and hexabromocyclododecane (HBCD) free with zero ozone-depletion potential, and is reusable in many applications.

#### 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 Wallmate™ XPS Foam Insulation**

Nominal Board Thickness <sup>(1)</sup> (in.)	R-Value <sup>(2)</sup>	Board Size (in.)
1.5	7.5	24 x 96

<sup>(1)</sup> Not all product sizes are available in all regions.

<sup>(2)</sup> R means resistance to heat flow. The higher the R-value, the greater the insulating power. R-values are expressed in ft<sup>2</sup>·h<sup>2</sup>·F/Btu. R-value determined by ASTM C518-17.

**TABLE 2: Canadian Sizes, R-Values and Edge Treatments for Styrofoam™ Brand Wallmate™ XPS Foam Insulation**

Nominal Board Thickness <sup>(1)</sup> (mm)	R-Value (RSI) <sup>(2)</sup>	Board Size (mm)
38	7.5 (1.32)	600 x 2400
50	10 (1.76)	600 x 2400

<sup>(1)</sup> Not all product sizes are available in all regions.

<sup>(2)</sup> As per CAN/ULC S 701-11. R-values expressed in ft<sup>2</sup>·h<sup>2</sup>·F/Btu.

## PROPERTIES

DuPont™ Styrofoam™ Brand Wallmate™ Insulation exhibits the properties and characteristics indicated in Tables 3 and 4 when tested as represented. Review all instructions 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 Wallmate™ XPS Foam Insulation**

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

<sup>(1)</sup> Values are consistent with the criteria of ASTM C578 and 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.

<sup>(2)</sup> Vertical compressive strength is measured at 10 percent deformation or 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, 5:1 is suggested. Contact DuPont for design recommendations.

<sup>(3)</sup> Based on 1" thickness.

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

Test Method	Property	Typical Value	Units
ASTM C518	Thermal Resistance <sup>(1)</sup> per in. (25 mm) @ 75°F (24°C) mean temp.	5.0 (.88)	ft <sup>2</sup> ·h·°F/Btu (m <sup>2</sup> ·°C/W), R-value (RSI) <sup>(1)</sup> , min.
ASTM D1621	Compressive Strength <sup>(2)</sup>	16 (110)	psi (kPa), min.
ASTM D2842	Water Absorption	0.3	% by volume, max.
ASTM E96	Water Vapor Permeance <sup>(3)</sup>	1.5 (90)	perm (ng/Pa·s·m <sup>2</sup> ), max.
-	Maximum Use Temperature	165 (74)	°F (°C)
ASTM D696	Coefficient of Linear Thermal Expansion	3.5 x 10 <sup>-5</sup> (6.3 x 10 <sup>-2</sup> )	in/in·°F (mm/m·°C)
CAN/ULC S102.2	Surface Burning Characteristics for both foam core and finished product <sup>(4)</sup>		
	Flame Spread	<300	
	Smoke Developed	<700	

<sup>(1)</sup> Values are consistent with the criteria of CAN/ULC S701.

<sup>(2)</sup> Vertical compressive strength is measured at 10 percent deformation or 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, 5:1 is suggested. Contact DuPont for design recommendations.

<sup>(3)</sup> Based on 1" (25 mm) thickness. CAN/ULC S102.2

<sup>(4)</sup> These numerical flame-spread and smoke-developed ratings are not intended to reflect hazards presented by this or any other material under actual fire condition. Refer to UL for details on foam thickness and maximum density evaluated.

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## TESTING

### Applicable Standards

DuPont™ Styrofoam™ Brand Wallmate™ Extruded Polystyrene (XPS) Foam Insulation meets ASTM C578 Type X – 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
- **C272** – Standard Test Method for Water Absorption of Core Materials for Structural Sandwich Constructions
- **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
- **D2842** – Standard Test Method for Water Absorption of Rigid Cellular Plastics
- CAN/ULC S701 Type 2

### Notice

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

- Meets IBC/IRC requirements for foam plastic insulation; see ICC-ES ESR-2142
- BOCA-ES RR 21-02
- Underwriters Laboratories, Inc. (UL) Classified, see Classification Certificate D369
- CCMC listing 12084-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. Warranties are available as described at [building.dupont.com/warranties](http://building.dupont.com/warranties).

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## 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 Wallmate™ 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.
- Prolonged exposure to ultraviolet radiation may cause the surface of **Styrofoam™ Brand Wallmate™** to become faded and dusty. A light-colored, opaque protective covering should be used if excessive solar exposure is expected. 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.
- Since dust would impair the performance of adhesives and finishes, dusty surfaces should be brushed off before products are applied.

### 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 DuPont product, coated debris, or solvent in accordance with applicable federal, state, and local government regulations.



**For more information visit us at  
[styrofoam.com](http://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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