

# Styrofoam™ Brand Plazamate™ Extruded Polystyrene Foam Insulation

Sturdy, Moisture-Resistant Insulation for Exterior Foundations

## FEATURES/BENEFITS

### Description

Styrofoam™ Brand Plazamate™ Extruded Polystyrene Foam Insulation\* is designed for installation above waterproofing membranes in commercial plaza deck applications. Styrofoam™ Brand Plazamate™ Insulation helps the roof membrane maintain a steady temperature, minimizing the harmful effects of freeze-thaw cycles, weathering and physical damage both during and after construction.

### Sustainable Solutions

- Styrofoam™ Brand Plazamate™ Insulation is reusable in many applications.
- Styrofoam™ Brand Plazamate™ Insulation is hydrochlorofluorocarbon (HCFC) free with zero ozone-depletion potential.
- Contains an average of 20% pre-consumer recycled content certified by UL Environment Inc.

### Ease of Installation

Styrofoam™ Brand Plazamate™ Insulation is:

- Strong, yet lightweight
- Easy to handle, cut and install
- Easy to fabricate into various sizes and shapes to meet specific design needs
- Square-edged on four sides to minimize on-site cutting and waste
- Lined with 1/2" x 1/4" drainage channels on the bottom long edge
- Reusable

### Available Sizes

Available sizes, R-values and edge treatments for Styrofoam™ Brand Plazamate™ Insulation can be found in Table 1.

**TABLE 1: Sizes, R-values and Edge Treatments for Styrofoam™ Brand Plazamate™ Extruded Polystyrene Foam Insulation**

Nominal Board Thickness <sup>(1)</sup> (in.)	R-Value <sup>(2)</sup>	Board Size (ft.)	Edge Treatment
1.5	7.5	24 x 96	Square Edge
2.0	10.5	24 x 96	Square Edge
3.0	15.0	24 x 96	Square Edge

<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 expressed in ft<sup>2</sup>-h<sup>2</sup>-F/Btu. R-value determined by ASTM C518

## PROPERTIES

Styrofoam™ Brand Plazamate™ 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.

**TABLE 2: Physical Properties (U.S.) of Styrofoam™ Brand Perimate™ Extruded Polystyrene Foam Insulation**

Property and Test Method	Value
Thermal Resistance per inch, ASTM C518 @ 75°F mean temp., ft <sup>2</sup> ·h·°F/Btu, R-value <sup>(1)</sup> , min.	5.0
Compressive Strength <sup>(2)</sup> , ASTM D1621, psi, min.	60
Water Absorption, ASTM C272, % by volume, max.	0.3
Water Vapor Permeance <sup>(3)</sup> , ASTM E96, perm, max.	0.8
Maximum Use Temperature, °F	165
Coefficient of Linear Thermal Expansion, ASTM D696, in/in·°F	3.5 x 10 <sup>-5</sup>
Flexural Strength, ASTM C203, psi, min.	75
Dimensional Stability, ASTM D2126, % linear change, max.	2.0
Surface Burning Characteristics <sup>(4)</sup> , ASTM E84, Flame Spread <sup>(3)</sup> , ASTM E84 Smoke Development, ASTM E84	15 165

<sup>1</sup> 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 at yield, whichever occurs first. Since STYROFOAM™ Extruded Polystyrene Foam Insulations are visco-elastic materials, adequate design safety factors should be used to prevent long-term creep and fatigue deformation.

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

<sup>4</sup> This numerical flame spread rating is not intended to reflect hazards presented by this or any other material under actual fire conditions

## TESTING

### Applicable Standards

**Styrofoam™ Brand Plazamate™ Insulation** meets ASTM C578, Type VII – Standard Specification for Rigid Cellular Polystyrene Thermal 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
- **D2842** – Standard Test Method for Water Absorption of Rigid Cellular Plastics **Styrofoam™ Brand Plazamate™ Extruded Polystyrene Foam Insulation**
- **C272** – Standard Test Method for Water Absorption of Core Materials for Structural Sandwich Constructions
- **E96** – Standard Test Methods for Water Vapor Transmission of Materials
- **E84** – Standard Test Method for Surface Burning Characteristics of Building 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

### Notice

**Styrofoam™ Brand Plazamate™ Insulation** complies with the following codes:

- Meets IBS/IRC requirements for foam plastic insulation; see ICC-ES ESR-2142
- ICBO-ES ER-2257
- BOCA-ES RR 21-02
- Underwriters Laboratories, Inc. (UL) Classified, see Classification Certificate D369
- Factory Mutual Approved – Subject to conditions of approval as a roof insulation when installed as described in the current edition of FM Approval Guide

### 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. Visit [building.dupont.com/warranties](http://building.dupont.com/warranties) or contact your DuPont representative for details.

## 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 Styrofoam™ Brand products.

### Precautionary Statements

- **Styrofoam™ Brand Plazamate™ Insulation** is combustible; protect from high heat sources. Local building codes may require a protective or thermal barrier.
- For more information, consult MSDS, call DuPont at 1-866-583-2583 or contact your local building inspector.
- Dispose of any residual Styrofoam™ Brand product, coated debris, or solvent in accordance with applicable federal, state, and local government regulations.

- Follow all applicable federal, state, local and employer regulations.

### Shelf Life and Storage

When stored outdoors, keep insulation boards tarpred or covered to protect from weather and weighted down to prevent boards from being blown around by the wind. Store above standing water.



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

Styrofoam™ Brand Spray Polyurethane Foam contains isocyanate, hydrofluorocarbon blowing agent and polyol. Read all the instructions and (M)SDS carefully before use. Wear protective clothing (including long sleeves), gloves, goggles and proper respiratory protection. Supplied air or an approved air-purifying respirator equipped with an organic vapor sorbent and a P100 particulate filter is required to maintain exposure levels below ACGIH, OSHA, WEEL or other applicable limits.

Provide adequate ventilation. Contents under pressure. STYROFOAM™ Brand SPF should be installed by a trained SPF applicator. 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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