

# DuPont™ Styrofoam™ Brand Plazamate™ XR Extruded Foam Insulation

High R-value, Tough, Versatile Insulation for Commercial Roof, Low-Temp, and Geotechnical Applications.

## HFC Regulation Compliant Formulation

### FEATURES/BENEFITS

#### Description

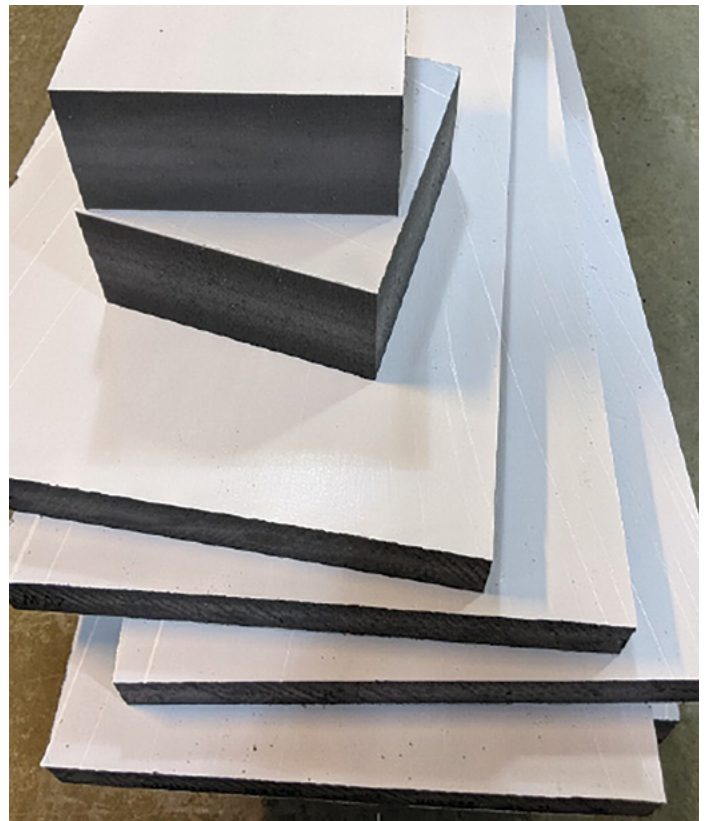
DuPont™ Styrofoam™ Brand Plazamate™ XR Foam Insulation is next generation in evolution of high-performance closed cell insulation that allows extra design flexibility for architects and engineers by optimizing roof thickness – reducing expensive commercial roof building alterations required for meeting the latest building and energy codes – and assists in reducing overall project costs. Styrofoam™ Brand Plazamate™ XR Foam Insulation is reusable, moisture-resistant, durable, easy to work with and offers more R per inch.

Available in compressive strength of 60 psi (415 kPa), Styrofoam™ Brand Plazamate™ XR Foam Insulation features exceptional moisture resistance and R-value\* retention. Styrofoam™ Brand Plazamate™ XR resists compressive creep and fatigue, delivering long-term compressive strength and high R-value.

#### Ease of Use

**Styrofoam™ Brand Plazamate™ XR Foam Insulation:**

- Provides superior resistance to water absorption, water vapor transmission, and freeze-thaw cycling
- Ideal for low-temperature, geotechnical, high-load commercial and other in-ground or water-contact applications such as Protected Membrane Roofs, Green and Blue Roofs, Cold Storage Buildings, Amenity Decks, and many others
- Delivers long-term compressive strength in high-load applications
- Features exceptional R-value and R-value retention, in typical construction and in demanding cold, wet, humid, changing environments
- Resists compressive creep and fatigue



#### Sustainable Solutions

Styrofoam™ Brand Plazamate™ XR Foam Insulation uses BluEdge™ technology. It is free of hydrochlorofluorocarbons (HCFC) and volatile organic components (VOC), carries zero ozone depletion potential, is compliant with HFC regulations, and is reusable in many applications.

Styrofoam™ Brand XPS Insulation is made of extruded polystyrene (XPS) and can be recycled at facilities that recycle XPS materials. Please check recycling facilities in your area to ensure they can recycle XPS Insulation.

\* R means resistance to heat flow. The higher the R-value or RSI, the greater the insulating power.

## PROPERTIES

DuPont™ Styrofoam™ Brand Plazamate™ XR Foam Insulation products exhibit the typical physical properties indicated in Table 1 when tested as represented. Review all instructions and (Material) Safety Data Sheet ((M)SDS) before use. Please contact DuPont at joseph.w.rofrano@DuPont.com when additional guidance is required for writing specifications that include this product.

**TABLE 1: U.S. Physical Properties of Styrofoam™ Brand Plazamate™ XR Foam Insulation**

Property and Test Method	Value
Complies with ASTM C578 Type VII	
Thermal Resistance <sup>(1)</sup> per inch, ASTM C518, ft <sup>2</sup> ·h·°F/Btu, R-value, min.	
@ 75°F (24°C) mean temp.	6.7
@ 40°F (4°C) mean temp.	7.4
@ 25°F (-4°C) mean temp.	7.7
Maximum Use Temperature, °F	165
Compressive Strength <sup>(2)</sup> , ASTM D1621, psi, min.	60.0
Water Absorption, ASTM C272, % by volume, max.	0.01
Water Vapor Permeance <sup>(3)</sup> , ASTM E96, perm, max.	0.2
Coefficient of Linear Thermal Expansion, ASTM D696, in/in·°F	3.5x10 <sup>-5</sup>
Flexural Strength, ASTM C203, psi, min.	75.0
Dimensional Stability, ASTM D2126, % linear change, max.	0.9
Surface Burning Characteristics, ASTM E84 Flame Spread <sup>(4)</sup> 20, Smoke Developed 50 <sup>(4)</sup>	

<sup>(1)</sup> Values are consistent with the criteria of ASTM C578. 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™ Brand Extruded Polystyrene Foam Insulation is a visco-elastic material, 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.

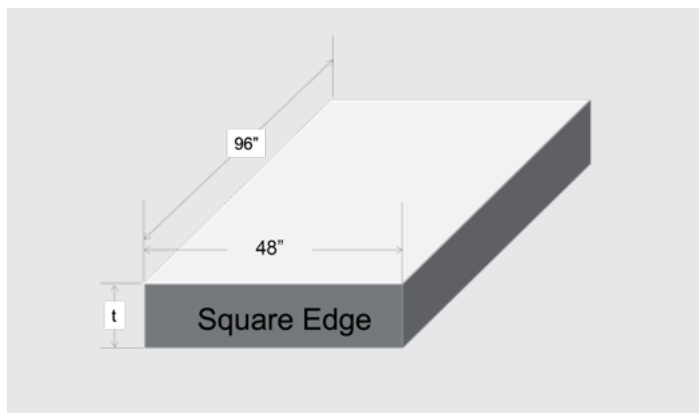
<sup>(3)</sup> Based on 1" thickness.

<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 conditions.

## Standard Sizes

Nominal Board Thickness	R-value	Board Size (ft)	Edge Treatments
2.3	15	4x8	Square Edge <sup>(1)</sup>
3.0	20	4x8	Square Edge <sup>(1)</sup>

<sup>(1)</sup> Effective surface area of 4x8 square edge boards are 16 ft<sup>2</sup> and 32 ft<sup>2</sup>, respectively



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## TESTING

### Applicable Standards

**Styrofoam™ Brand Plazamate™ XR** meets ASTM C578-19, 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

**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™ XR Extruded Polystyrene (XPS) Foam Insulation** complies with the following codes: Underwriters Laboratories, Inc. (UL) Classified

### Warranty

In the United States, 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](http://building.dupont.com/warranties) or contact your DuPont representative for details.

## Applicable Standards

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

## Precautionary Statements

**Styrofoam™ Brand Plazamate™ XR 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 1-833-338-7668 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.

## Shelf Life and Storage

When stored outdoors, keep insulation boards in original packaging and weighted down to prevent boards from being blown around by the wind.

## Disposal

Dispose of any residual Styrofoam™ Brand product, in accordance with applicable federal, state, and local government regulations.

**Styrofoam™ Brand XPS Insulation** is made of extruded polystyrene (XPS) and can be recycled at facilities that recycle XPS materials. Please check recycling facilities in your area to ensure they can recycle XPS Insulation.



**For more information  
please contact Joe Rofrano  
at [joseph.w.rofrano@dupont.com](mailto:joseph.w.rofrano@dupont.com)**

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