

DuPont™ Styrofoam™ Brand Plazamate™ XR XPS Insulation

High R-value, Tough, Versatile Insulation for Commercial Roof, Low-Temp, and Geotechnical Applications
HFC Regulation Compliant Formulation

OVERVIEW

Description

DuPont™ Styrofoam™ Brand Plazamate™ XR Extruded Polystyrene (XPS) 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 XPS Insulation is reusable, moisture-resistant, durable, easy to work with and offers more R-value per inch.

Styrofoam™ Brand Plazamate™ XR XPS Insulation, with a compressive strength of 60 psi (415 kPa), stands out for its strong moisture resistance and R-value retention. It's designed to resist compressive creep and fatigue, ensuring long-term structural integrity and thermal performance. This insulation is ideal for wet and exposed applications, including plaza decks and roof insulation.



Features and Benefits

- **Space-Saving and Versatile:** Ideal for space-constrained construction assemblies requiring high R-value. Suitable for a variety of construction applications.
- **Easy to Install and Helps Reduce Labor Costs:** Quick and easy to install. Helps to reduce labor, installation and jobsite equipment run time. No new tools or installation techniques required.
- **Sustainable and Long-Lasting:** Low-GWP formula. Helps to reduce number of trucks required for material transport. Recyclable, reusable, moisture-resistant and durable. Helps lower building energy consumption and related costs.
- **High Insulation Power:** Delivers aged R-value from 6.7 ft²·hr·°F/Btu per inch at 75°F (24°C) mean temperature to 7.7 R per inch at 25°F (-4°C) mean temperature (per ASTM C518). Highest thermal resistance value among extruded polystyrene foam board insulations at R6.7 per inch.

Sustainable Solutions

- 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.
- Styrofoam™ Brand Plazamate™ XR XPS 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.

Applications

- Styrofoam™ Brand Plazamate™ XR XPS Insulation is an ideal solution for the following applications;
- Low-Temperature
- Geotechnical
- High-Load Commercial
- Protected Membrane Roofs
- Cold Storage Roofs
- Amenity Deck
- Green and Blue Roofs

Warranty

- Styrofoam™ Brand Insulation is backed by a 50-year thermal limited warranty on products 1.5 inches and greater. For thickness less than 1.5 inches, other warranties may apply. For additional warranty information please visit building.dupont.com or contact your DuPont representative.

Standard Sizes

Standard Sizes, R-Values and Edge Treatments for Styrofoam™ Brand Plazamate™ XR XPS Insulation

| Thickness | Width | Length | R-Value | Edge Treatment |
|-----------|-------|--------|---------|----------------|
| 2 1/4 in. | 4 ft. | 8 ft. | 15 | Square Edge |
| 3 in. | 4 ft. | 8 ft. | 20 | Square Edge |

Note: Please be advised that additional sizes may be available. Availability of all sizes varies by region and is subject to change. For further information, please contact your local DuPont Sales Representative or call us at 1-866-338-7668.

TESTING AND CODE COMPLIANCE

Styrofoam™ Brand Plazamate™ XR XPS Insulation exhibits the properties and characteristics indicated in the table below 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.

| TEST METHOD | TEST TITLE | PROPERTY | RESULTS |
|-------------|--|---|---|
| FIRE | | | |
| UL 723 | Test Method for Surface Burning Characteristics of Building Materials | Surface Burning Characteristics | Flame Spread ≤ 25 Smoke Developed ≤ 450 |
| THERMAL | | | |
| ASTM C518 | Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus | Thermal Resistance per inch @ 75°F mean temp ¹ | 6.7 ft ² · h · °F / Btu, R-value, min. |
| ASTM D696 | Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30°C and + 30°C with a Vitreous Silica Dilatometer | Coefficient of Linear Thermal Expansion | 3.5 x 10 ⁻⁵ in./in. · °F |
| ASTM D2126 | Standard Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging | Change in Dimensions | 0.9 % change, max. |
| STRENGTH | | | |
| ASTM D1621 | Standard Test Method for Compressive Properties of Rigid Cellular Plastics | Compressive Strength ² | 60 psi, min. |
| ASTM C203 | Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation | Flexural Strength | 75 psi, min |
| WATER | | | |
| ASTM C272 | Standard Test Method for Water Absorption of Core Materials for Sandwich Construction | Water Absorption | 0.01 % by volume, max. |
| ASTM E96 | Standard Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials | Water Vapor Permeance ³ | 0.2 perm, max. |

¹Values are consistent with the criteria of ASTM C578 and the requirements of 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.

²Vertical compressive strength is measured at 10 percent deformation or at 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.

³Based on 1" thickness.

HANDLING

Warning

- WARNING: For Professional Use Only** - Read and follow the entire Safety, Handling, and Storage section carefully before use. The information below is designed to protect the user and allow for safe use and handling of DuPont products.

Due to the critical technical design aspects of many of its applications, DuPont recommends that qualified designers or consultants design your system. Follow all applicable federal, provincials, territories, local and employer regulations.

Product Limitations

- 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.

Cleanup & Disposal

- Dispose of any residual DuPont product, coated debris, or solvent in accordance with applicable federal, state, and local government regulations.

Precautionary Statements

- **CAUTION:** Styrofoam™ Brand XPS Insulation is combustible. 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.
- Fabrication methods which involve cutting into this product may release the blowing agent(s) remaining in the cells. Provide adequate ventilation to assure localized concentrations in release areas are maintained below the lower flammable limit.
- If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air. Mechanical cutting, grinding or sawing can cause formation of dusts. To reduce the potential for dust explosion, do not permit dust to accumulate.
- Rigid foam insulation does not constitute a working walkable surface or qualify as a fall protection product.

Supplemental Information

- The product meets the definition of an article and is exempt from US TSCA and Canadian DSL inventory requirements.
Compliant with Title 42 Chapter 85 Clean Air Act: Subchapter VII American Innovation and Manufacturing Act of 2020, and Section 612 US EPA Significant New Alternative Policy. Global Warming Potential <150. This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Compliant with CANADIAN ENVIRONMENTAL PROTECTION ACT, 1999, SOR/2016-137, 64.5 (1) Plastic foam or rigid foam product. Global Warming Potential <150.

Handling & Use

- Before installation, 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.
- Use gloves to protect from mechanical injury.
- Do not leave Styrofoam™ Brand XPS exposed to direct sunlight for more than 90 days. Consult a DuPont representative if exposure is expected to be longer than 90 days. Prolonged exposure to ultraviolet radiation may cause the surface of Styrofoam™ Brand XPS to become faded and dusty. The surface degradation will have no measurable effect on the insulating value of the foam unless the deterioration is allowed to continue until foam thickness is lost.

- 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.

Life & Storage

- In order to prevent buildup of combustible vapors, do not store large quantities of this product in unventilated spaces. Transport bulk shipments of this product in ventilated vehicles. During shipment, storage, installation and use, this material should not be exposed to flame or other ignition sources.
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.



For more information, visit us at
building.dupont.com
or call us at 1-833-338-7668

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