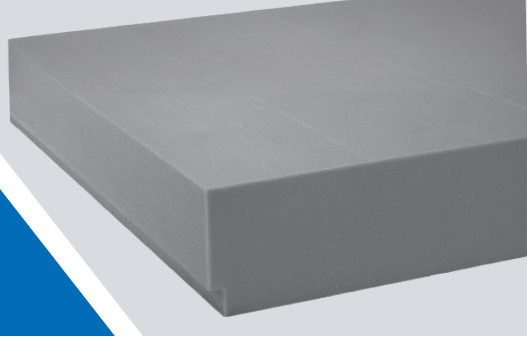
DuPont™ Styrofoam™ Insulation

Commercial Product Data Sheet



Description:

DuPont™ Extruded Polystyrene (XPS) Insulation is comprised of closed-cell extruded polystyrene. It is designed for use in heavyweight infrastructure and low-temperature applications where compressive strength and moisture resistance are crucial. The edges on all insulation panels are square except for a ½ in. x ¼ in. drainage channel that is cut along the long edges on the bottom side of Roofmate™ and Plazamate™. (Drainage channels are not included in Highload™ products).

Contact Siplast for additional information on approved product uses.

Application:

Refer to the DuPont™ Installation Guide for detailed application information.

Uses:

Vegetated Roofing

Split Slab Waterproofing

Inverted Roof Membrane Assemblies

Panel Width	24 in. or 48 in. (609.6 mm or 1219.2 mm)
Panel Length	96 in. (2438.4 mm)
Thickness*	1 in. – 4 in. (25.4 mm – 101.6 mm)

*Depending on product type

Storage and Handling:

When stored outdoors, XPS should be protected from exposure to direct sunlight using the original packaging or an opaque, light–colored tarp. XPS that has been unwrapped should be covered or rewrapped. XPS left exposed should be covered within 60 days to minimize UV damage. Once the exposed XPS is covered, the damage stops and is limited to the thin layer of cells on the surface that was exposed to the UV. XPS cells below the UV exposed surface layer are generally undamaged and the XPS overall performance remains intact.

WARNING: This product is combustible. A protective barrier or thermal barrier is required as specified in the appropriate building code. Protect from exposure to open flame or other ignition sources during shipping, storage, and installation.

See product packaging and the Safety Data Sheet for specific information on the safe handling of this product.

Packaging:

Factory packaging not adequate for outdoor protection.

Read and follow the entire Safety, Handling, and Storage section and Safe Handling document on BeyondBlue.DuPont.com carefully before use.

Listings, Approvals, & Certifications:

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Classified by UL in accordance with ANSI/UL 790. Refer to UL Product iQ for specific assemblies.

DuPont™ Styrofoam™ Insulation

Physical and Mechanical Properties

Property (As Manufactured)		Roofmate/Highload 40*	Plazamate/Highload 60*	Highload 100*	Test Method
R-value per inch (min.)†		5.0 °F·ft²·hr/Btu	5.0 °F·ft²·hr/Btu	5.0 °F·ft²·hr/Btu	ASTM C518
Compressive Strength (min.)‡		40 psi (240 kPa)	60 psi (414 kPa)	100 psi (689 kPa)	ASTM D1621
Water Absorption (max.)		0.10%	0.10%	0.10%	ASTM C272
Water Vapor Permeance§		1.0 perms (57.2 ng/Pa.s.m²)	1.0 perms (57.2 ng/Pa.s.m²)	1.0 perms (57.2 ng/Pa.s.m²)	ASTM E96
Dimensional Stability (max.)		2.0	2.0	2.0	ASTM D2126
Maximum Use Temperature		165°F (74°C)	165°F (74°C)	165°F (74°C)	N/A
Linear Coefficient of Thermal Expansion		3.5 x 10-5 in./in.·°F (6.3 x 10-5 m/m/°C)	3.5 x 10-5 in./in.·°F (6.3 x 10-5 m/m/°C)	3.5 x 10-5 in./in.·°F (6.3 x 10-5 m/m/°C)	N/A
Flexural Strength (min.)		60 psi (350 kPa)	75 psi (517 kPa)	100 psi (689 kPa)	ASTM C203
Type		VI	VII	V	ASTM C578
Compressive Modulus (typical)		1,400 psi (9,650 kPa)	2,200 psi (15,170 kPa)	3,700 psi (25,510 kPa)	ASTM D1621
LTTR @ 50mm**		1.71(m²* °C/W)	1.71(m²* °C/W)	1.71(m²* °C/W)	N/A
Surface Burning Characteristics††	**Flame Spread**	25 (Class A) <450	25 (Class A) <450	25 (Class A) <450	ASTM E84
	Smoke Developed				

*Values stated are approximate and subject to normal manufacturing variation. These values are not guaranteed and are provided solely as a guide.

†Values 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. Ask your seller for the fact sheet on R-value.

‡Vertical 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. For static loads, 3:1 is suggested. For dynamic loads, 10:1 is suggested.

§Water vapour permeance varies with product type and thickness. Values are based on the desiccant method and they apply to insulation 1" (25 mm) or greater in thickness.

**Long Term Thermal Resistance (LTTR) values determined per CAN/ULC-S770.

††According to CAN/ULC-S102.2. 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.