

DuPont™ Styrofoam™ Insulation



GENERAL DESCRIPTION

Styrofoam™ brand insulation is a closed cell, rigid plastic, extruded polystyrene foam insulation of various compressive strengths. The edges on all insulation panels are square except for a 1/2" x 1/4" drainage channel that is cut along the long edges on the bottom side of ROOFMATE™ and PLAZAMATE™.

BASIC USE

Styrofoam brand insulation is designed for use in roof, wall and foundation insulation applications in new or retrofit commercial structures. Styrofoam brand ROOFMATE is intended for use on top of roofing/waterproofing membranes in ballasted IRMA/PMR (Inverted Roof Membrane Assembly/Protected Membrane Roof) applications. Styrofoam brand PLAZAMATE and HIGHLOAD™ 100 are intended for use above roofing/waterproofing membranes in roof, plaza or parking deck applications where high compressive strength is required.



SIZES

Styrofoam brand insulation is available in panels 24 inches wide X 96 inches long in thicknesses of 1 inch to 4 inches depending on the product type.

TECHNICAL DATA

PROPERTY	TEST METHOD	ROOFMATE/HI40	PLAZAMATE/HI60	HIGH LOAD 100
THERMAL RESISTANCE				
Aged R-value/inch @75°F mean temp., ft ² *hr*°F/Btu, (M ² *K/w)	ASTM C518	5.0 (0.88)	5.0 (0.88)	5.0 (0.88)
COMPREHENSIVE STENGTH ¹ psi, (kPa), min.	ASTM D1621	40 (276)	60 (413)	100 (689)
FLEXURAL STRENGTH psi, (kPa), min.	ASTM C203	60 (413)	75 (517)	100 (689)
WATER ABSORPTION % by volume, max.	ASTM C272	0.1	0.1	0.1
WATER VAPOR PERMEANCE ² perm, (ng/(Pa*s*m ²))	ASTM E96	1.0 (57.2)	0.8 (45.8)	0.8 (45.8)
DIMENTIONAL STABILITY % linear change, max.	ASTM D2126	2.0	2.0	2.0
LINEAR COEFFICIENT OF THERMAL EXPANSION in./in.*°F, (mm/mm*°C)	--	3.5 X 10 ⁻⁵	3.5 X 10 ⁻⁵	3.5 X 10 ⁻⁵
TYPE	ASTM C578	VI	VII	V
MAXIMUM USE TEMPERATURE °F, (°C)	--	165 (74)	165 (74)	165 (74)
FLAME SPREAD ³	ASTM E84	15	15	15
SMOKE DEVELOPED ³	ASTM E84	165	165	165

LEED® INFORMATION

	Credit 4	Credit 5
Recycled Content (% by weight)	20 (pi)	
Manufacture Location	Contact Hydrotech for project specific information	
Extraction/Harvesting Location	Contact Hydrotech for project specific information	
VOC Content (g/L)		0

1. At 10% deformation or yield, whichever occurs first. Since Styrofoam is a visco-elastic material, adequate design safety factors should be used to prevent long-term creep – static loads, 3 to 1; dynamic loads, 5 to 1.
2. Values based on desiccant method. Vapor permeance varies with type and thickness.
3. 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.

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