

Hydrotech® DuPont™ Styrofoam™ Insulation ST-100



BUILDING TRUST



formerly known as DuPont™ Styrofoam™ Insulation ST-100

GENERAL DESCRIPTION

Styrofoam brand insulation is a closed cell, rigid plastic, extruded polystyrene foam insulation. Roofmate™ ST-100**, Plazamate™ ST-100, and High Load ST-100 materials long, bottom edges are rabbeted producing channels on the underside of the boards. The Styrofoam ST-100 products are dark gray in color (differing from the legacy blue) and manufactured to comply with new reduced global warming potential (GWP) requirements.



BASIC USE

Styrofoam brand insulation is designed for use in roof, wall and foundation insulation applications in new or retrofit commercial structures. Styrofoam Roofmate™ ST-100 is intended for use on top of roofing/waterproofing membranes in ballasted IRMA/PMR (Inverted Roof Membrane Assembly/Protected Membrane Roof) applications. Styrofoam Plazamate™ ST-100 and HighLoad boards 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 RESISTANCE¹				
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 STENGTH²				
psi, (kPa), min.	ASTM D1621	40 (276)	60 (413)	100 (689)
WATER ABSORPTION				
% by volume, max.	ASTM C272	0.1	0.1	0.1
WATER VAPOR PERMEANCE³				
perm, (ng/(Pa*s*m ²))	ASTM E96	1.0 (57)	1.0 (57)	1.0 (57)
MAXIMUM USE TEMPERATURE				
°F, (°C)	--	165 (74)	165 (74)	165 (74)
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
FLEXURAL STRENGTH				
psi, (kPa), min.	ASTM C203	60 (413)	75 (517)	100 (689)
SURFACE BURNING CHAR. FOR BOTH FOAM CORE & FINISHED PRODUCT				
	ASTM E84	Class A	Class A	Class A
FLAME SPREAD⁴				
	ASTM E84	25	25	25
SMOKE DEVELOPED				
	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. R-values are consistent with criteria of ASTM C578 and the requirements of the FTC R-value rule (16 CFR Part 460)
2. Vertical compressive strength is measured at 10 percent deformation or at yield, whichever occurs first.
3. Values based on 1" thickness.
4. These numerical flame spread and smoke developed ratings are not intended to reflect hazards presented by this or any other material under actual fire conditons.

* trademark of DuPont

** ST-100 is a temporary designation for the dark gray Styrofoam products that comply with the new reduced global warming potential (GWP) requirements until the full transition is complete. All physical properties remain the same between the ST-100 gray Styrofoam products and the legacy blue Styrofoam products.

The reduced Global Warming Potential (GWP) Styrofoam™ Brand XPS Products contain residual levels of a blowing agent that will slowly diffuse out of the foam over an extended period of time. Ventilation is required to ensure that the vapor released by the foam does not accumulate and reach a flammable concentration. Reduced GWP Styrofoam™ Brand XPS Products are not classified as hazardous materials. However, all transportation methods, storage, fabrication, and downstream scrap and waste processing should incorporate adequate ventilation to prevent accumulation of vapor.

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