



GENERAL DESCRIPTION

STYROFOAM® brand insulation is a closed cell, rigid plastic, extruded polystyrene foam insulation.

BASIC USE

STYROFOAM brand insulation is designed for use in roof, wall and foundation insulation applications in new or retrofit commercial structures. STYROFOAM RoofMate is intended for use on top of roofing/waterproofing membranes in ballasted IRMA/PMR (Inverted Roof Membrane Assembly/Protected Membrane Roof) applications. STYROFOAM 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 SPECIFICATIONS

PROPERTY	TEST METHOD	ROOFMATE	PLAZAMATE	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)
COMPRESSIVE STRENGTH 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	0.3-0.8 (17.2-46.0)	0.3-0.8 (17.2-46.0)	0.6-1.1 (34.5-63.2)
DIMENSIONAL STABILTY % 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)

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 desicant method. Vapor permeance varies with type and thickness.

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