



**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 <sup>2</sup> *hr*°F/Btu, (M <sup>2</sup> *K/w)	ASTM C518	5.0 (0.88)	5.0 (0.88)	5.0 (0.88)
COMPRESSIVE STRENGTH <sup>1</sup> 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 <sup>2</sup> perm, (ng/(Pa*s*m <sup>2</sup> ))	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 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 <sup>-5</sup>	3.5 X 10 <sup>-5</sup>	3.5 X 10 <sup>-5</sup>
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 desiccant method. Vapor permeance varies with type and thickness.