Technical Data Sheet

Styrofoam™ Deckmate™ Plus FA

IB Roof Systems®

Product Description:

A durable XPS foam insulation board made of a high-performance extruded polystyrene (XPS featuring a planed surface with smooth, high-density skins and a closed cellular structure. Designed for fully adhered roofing systems, Styrofoam™ Deckmate™ Plus FA boasts excellent insulating characteristics, low water absorption, and excellent compressive strength.

Size/Packaging:

- Available in 2' x 8' panels
- · Available thicknesses range from 1.5" to 4.0"

Features:

- · Specially designed smooth, high-density skins
- Hydrochlorofluorocarbon (HCFC) free with zero ozone depletion potential
- · Excellent insulating characteristics
- Hydrophobic nature of polystyrene provides high resistance to both water and water vapor
- · Excellent freeze-thaw resistance
- · Excellent compressive strength
- · Long-term durability
- · Reusable in many applications
- Covered component under the IB Total Systems Warranty

Application:

The XPS rigid insulation boards can be installed over approved substrates, directly on structural steel decks or beneath an approved cover board or thermal barrier. **Note:** Requires use of approved cover board or non-polystyrene insulation board as top layer; or use of approved separation sheet between the IB membrane and polystyrene insulation. Refer to IB Specifications and Construction Details for additional installation instructions.

Multi-Layer Installation:

Improved insulation thermal performance and a reduction of thermal bridging can be obtained by the installation of two or more layers with all joints offset. Avoid continuous vertical joints on all multi-layer applications by staggering and offsetting the joints of each layer from those of preceding layers.

Approvals:

- Meets or exceeds the requirements of ASTM C578 Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
- UL Standard 790 (ASTM E108) Roofing Systems Classification for various recover applications.
- FM Standard 4450

Limitations/Precautions:

When stored outdoors, keep insulation boards covered with white plastic film or light-colored tarps to protect from weather and weighted down to prevent boards from being blown around by the wind. Store above standing water. Do not leave Styrofoam™ Deckmate™ Plus FA exposed to direct sunlight for more than 90 days. Consult manufacturer if exposure is expected to be longer than 90 days. Caution: Use a temporary white covering over dark membranes or immediately cover with pavers or stone to prevent excessive heat exposure to the foam board.



Typical Physical Properties*				
Property	Test Method	Type IX		
R-value ¹				
Resistance	ASTM C518	5.00		
@75°F				
Compressive Strength, (psi,				
10% deformation) ²	ASTM D1621	25		
Flexural Strength (psi)	ASTM D203	50		
Dimensional Stability ³	ASTM D2126	2.0		
Water Vapor Permeance				
(max perm, 1")4	ASTM E96	1.5		
Water Absorption (max %				
vol)	ASTM C272	0.1		
Flame Spread ⁵	ASTM E84			
	(10 min.)	15		
Smoke Development⁵	ASTM E84			
	(10 min.)	165		
Surface Burning				
Characteristics for both				
foam core and finished	ASTM E84			
product	(10 min.)			
Flame Spread ⁴		25		
Smoke Developed ⁴		<450		

R means resistance to heat flow. The higher the R-value, the greater the insulating power.

Vertical compressive strength is measured at 10 percent deformation or at yield, whichever occurs

first

³These numerical flame spread, and smoke developed ratings are not intended to reflect hazards presented by this or any other material under actual fire conditions ⁴Based on 1" thickness.

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*Physical properties shown are based on data provided by resin manufacturers, independent test agencies and insulation manufacturers.

Product Information				
Thickness ¹	R-Value ²	Size	Edge Style	
1.5	7.5	2' x 8'	Square Edge	
2.0	10.0	2' x 8'	Square Edge	
2.5	12.5	2' x 8'	Square Edge	
3.0	15.0	2' x 8'	Square Edge	
4.0	20.0	2' x 8'	Square Edge	

¹Not all product sizes are available in all regions

²R means resistance to heat flow. The higher the R-value, the greater the insulating power. R-values are expressed in ft2 • h • *F/Btu. RSI values are expressed in m2 ° C/W. R-value determined by ASTM C518

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