

# **FR Composite Sheet**

Premium EPS Insulation with a Fire Retardant Laminate



## WHY FR COMPOSITE SHEET?

- Fire-Resistant Laminate (FR-10 coated glass fiber) enhances overall fire performance
- Laminate may negate the need for separate fire retardant slip sheets or expensive and heavy cover boards
- Added R-value = Excellent thermal savings per dollar cost
- EPS R-value does not degrade over decades of use (unlike Polyiso or XPS)
- Maximize efficiency with notable material savings
- Dimensional stability
- EPS contains no formaldehyde or ozone-depleting CFCs or HCFCs

### **Sizes**

- Sheet sizes of 4' x 8' ft
- Density: 1.25V, 1.5V, 2.0V
- Thicknesses up to 6"



#### **APPLICATIONS**

- Used as a cover board for metal retrofit & low slope roof applications that employ mechanically attached systems
- May be part of Class A fire rated roof assembly
- Typically installed over a non-combustible roof deck









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### **CODE APPROVALS**

- ASTM C578, Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation
- Underwriters Laboratory Listed, UL ER7260
- UL classified TGFU.R7260 for ballasted and mechanically attached roofing assemblies
- Fire Rated Composite (FR) enhances the overall fire performance of many conventional commercial roof systems. RhinoBond friendly. Minimum thickness above rib - 1.0" PE 1.5"

## **EXPANDED POLYSTYRENE TYPICAL PHYSICAL PROPERTIES**

Cellofoam® EPS Typical 1 Physical Properties			ASTM Test	ASTM C578 Type			
		Units		Type I	Type VIII	Type II	Type IX
Density (Nominal)		lb/f³	C303 or	1.0	1.25	1.5	2.0
Density (Minimum)		lb/f³	D1622	0.90	1.15	1.35	1.80
Thermal Resistance							
R-Value <sup>2</sup>	at 25 °F	(°F ft² hr) / Btu per inch	C177 or C518	4.35	4.54	4.76	5.00
	at 40 °F			4.17	4.25	4.55	4.76
	at 75 °F	IIICII		3.85	3.92	4.17	4.35
Compressive Strength at 10% deformation		psi	D1621	10 - 14	13 - 18	15 - 21	25 - 33
Flexural Strength		psi	C203	25 - 30	30 - 38	40 - 50	50 - 75
Water Vapor Permeance 1.0 in. thickness		perm.	E96	2.0 - 3.0	1.5 - 2.8	0.9 - 2.5	0.6 - 1.5
Water Absorption by total immersion			C272 or				
		volume %	C1763	< 1.5	< 1.5	< 1.5	< 1.5
Capillarity				none	none	none	none
<b>Dimensional Stability</b> maximum		change %	D2126	< 0.5	< 0.5	< 0.5	< 0.5
Coefficient of Thermal Expansion in/(in °F)			D696	0.000035	0.000035	0.000035	0.000035
Fungus & Bacterial Resistance -			C1338	Will not support bacterial or fungus growth; no food value			

<sup>1</sup> Typical physical properties are based on data provided by resin manufacturer, independent test agencies, and Cellofoam North America Inc. All data is for plain, unlaminated EPS foam.

Warning: This product is combustible and if exposed to a fire of sufficient heat and intensity may burn rapidly. It should not be left exposed or inadequately protected. Protect Cellofoam® expanded polystyrene from exposure to hydrocarbons, coal tar pitch, solvents, and solvent fumes. Consult specific instructions and applicable building codes for use of this product.

Cellofoam® North America Inc. is an expanded polystyrene foam manufacturer and not an engineering consulting firm. Thus, it is beyond our scope to provide design services on the specific use for our products. Users of our EIFS EPS products should consult with appropriate engineering and code experts to determine the exact type and specifications of EPS required for their project. The sale of these products shall be subject to Terms and Conditions of Sale, including those limiting warranties as set forth in Cellofoam®'s invoices. No agent, employee, or representative of Cellofoam® North America Inc. or its subsidiary or affiliated companies is authorized to modify this disclaimer.

<sup>2</sup> R means resistance to heat flow. The higher the R value, the greater the insulating power.

 $<sup>{}^{\</sup>star}\mathsf{Please}\ \mathsf{consult}\ \mathsf{local}\ \mathsf{building}\ \mathsf{codes}\ \mathsf{and}\ \mathsf{membrane}\ \mathsf{manufacturers}\ \mathsf{for}\ \mathsf{system}\ \mathsf{requirements}.$