



FR COMPOSITE SHEET

Labor Saving Combination of Premium EPS Insulation with a Fire Retarding Laminate for Commercial & Industrial Roofing

Cellofoam® FR Composite Sheet is made from a coated-glass fiber mat laminated onto premium expanded polystyrene (EPS) foam insulation for use as a combined insulation and fire retarding layer in roofing applications. The laminate negates the need for slip sheets or expensive and heavy cover boards in many roof systems, saving significant material and labor costs. Cellofoam FR Composite Sheet is used in low-slope roof applications that employ mechanically attached or ballasted single ply membrane systems, and may be part of Class A fire rated roof assembly. The product is typically installed over a non-combustible roof deck as a single layer, and is often used as a cover board for Cellofoam EPS Flute Fill, Flat Insulation, or a Tapered EPS substrate. The core of Cellofoam FR Composite Sheet is a premium, rigid, modified EPS with closed cells molded in a range of densities and sizes to meet project specifications & requirements. The fire-resistant laminate enhances the overall fire performance of many conventional commercial roof systems, including metal roofs.



ADVANTAGES

Labor & Material Savings: With a factory laminated facer, Cellofoam® FR Composite Sheet combines the insulation with the cover slip sheet to save installation time and labor costs. Cellofoam FR Composite often also provides significant material cost savings vs Polyiso, especially as a two-layer EPS roof with EPS taper panels underneath.

Code Approvals: Underwriters Laboratory Listed, UL Classified TGFU.R7260, UL ER7260, for low slope mechanically attached or ballasted roof systems. Part of a Class A assembly over noncombustible decks. Please consult local building codes and membrane manufacturers for system requirements.

Stable R-value: The R-value of Cellofoam FR Composite Sheet is permanent because EPS contains only air. Unlike Polyiso or XPS whose blowing agents outgas, EPS R-values do not degrade over decades of use.

Moisture Resistant: Cellofoam EPS is quick drying and does not readily absorb moisture from the air. Its closed-cell structure reduces the absorption and migration of moisture.

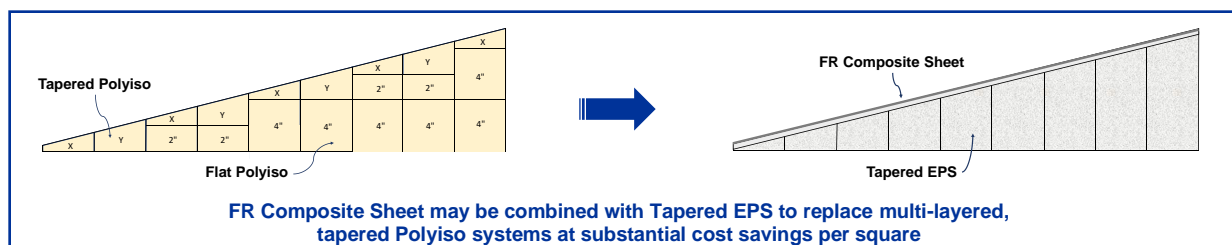
Premium Quality: Meets or exceeds ASTM C578 specs, with excellent dimensional stability & compressive strength.

Environmentally Friendly: Cellofoam EPS contains no formaldehyde or ozone-depleting CFCs or HCFCs. It is 100% recyclable and may contain recycled material.

Manufactured to your Needs: Cellofoam® FR Composite Sheet is available in 4 x 8 ft boards of thickness 1 to 6 inches, and ASTM C578 nominal densities of 1.0, 1.25, 1.5, and 2.0 lb/ft³.



Roofers installing Cellofoam FR Composite Sheets over Cellofoam Flute Fill.





CELLOFOAM®
North America Inc.

FR COMPOSITE SHEET

Cellofoam® EPS Typical Physical Properties ¹		Units	ASTM Test	Type I	ASTM C578 Type		
					Type VIII	Type II	Type IX
Density (Nominal)		lb/ft ³	C303 or D1622	1.0	1.25	1.5	2.0
Density (Minimum)		lb/ft ³		0.90	1.15	1.35	1.80
Thermal Resistance							
R-Value ²	at 25° F	(°F ft ² hr) /	C177 or C518	4.35	4.54	4.76	5.00
	at 40° F	Btu per		4.17	4.25	4.55	4.76
	at 75° F	inch		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		volume %	C272 or C1763	< 1.5	< 1.5	< 1.5	< 1.5
Capillarity		--	--	none	none	none	none
Dimensional Stability 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			

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

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

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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 EPS products such as FR Composite Sheet 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.