



EPS FLUTE FILL

Save up to 40% on this Void Fill Compared to Polyiso

Cellofoam® EPS Flute Fill serves as a void fill installed within the flute of an existing metal roof as a component of a retrofit system. The product is either loosely laid or mechanically attached to provide a uniform and level substrate. Cellofoam EPS Flute Fill is custom cut with either a square or tapered edge to accurately fit nearly any metal deck or steel roof profile. The core of the Flute Fill is a premium, rigid, modified expanded polystyrene (EPS) insulation with closed cells molded in a range of densities to provide a variety of compressive strengths to meet project specifications and requirements. EPS provides a long-term, stable R-value, superior compressive strength, moisture resistance, and energy and cost efficiency. It is 100% recyclable, and is often used as a replacement for Polyiso with up to 40% cost savings. Cellofoam EPS Flute Fill is a premium product, and is produced to meet or exceed ASTM C578, *Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation*.



Cellofoam Flute Fill in the foreground. In the background, a roofer is installing Cellofoam FR Composite Sheet over the flute fill.

ADVANTAGES

Material Savings: EPS insulation provides the highest R-value per dollar compared to XPS and Polyiso. Cellofoam® EPS Flute Fill may provide up to 40% cost savings over Polyiso flute fill.

Code Approvals: Cellofoam EPS is 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.

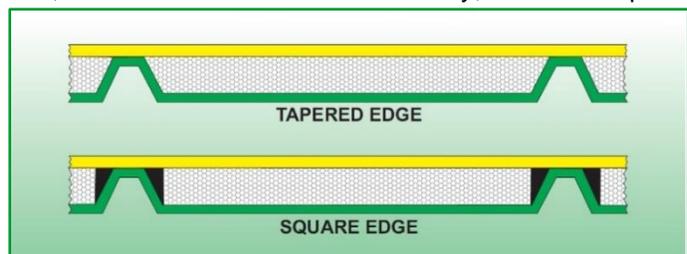
Stable R-value: The R-value of Cellofoam EPS Flute Fill is permanent because EPS contains only air. Unlike Polyiso or XPS whose blowing agents outgas, EPS R-values do not degrade over decades of use. Care should be taken in calculating flute roof system R-values where the insulation coverage may not be continuous, using standard industry methodologies such as those described in the ASHRAE Fundamentals Handbook.

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, water absorption, and compressive strength characteristics.

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 EPS Flute Fill is CNC hot wire cut to fit your flute profile. It is available in either square or tapered edges, lengths of 8, 10, and 12 feet, ASTM C578 nominal densities of 1.0, 1.25, 1.5, and 2.0 lb/ft³, and compressive strengths from 10 to 25 psi.





EPS FLUTE FILL

Cellofoam® EPS Typical Physical Properties ¹	Units	ASTM Test	ASTM C578 Type			
			Type I	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	D1622	0.90	1.15	1.35	1.80
Thermal Resistance						
R-Value ²	at 25° F	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		3.85	3.92	4.17	4.35
		(°F ft ² hr) / Btu per inch				
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.

Conyers, GA
1917 Rockdale Industrial Blvd.
Conyers, GA 30012

Gainesville, GA
1090 Airport Parkway
Gainesville, GA 30503

Orlando, FL
11237 Astronaut Blvd.
Orlando, FL 32837

Sallisaw, OK
1330 W. Redwood Ave
Sallisaw, OK 74955

Whiteland, IN
150 Crossroads Drive
Whiteland, IN 46184

Winchester, VA
326 McGhee Road
Winchester, VA 22603



800-468-3626
www.Cellofoam.com



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 EPS 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 Cellofoam Flute Fill 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.