

INSULFOAM®

ROOF INSULATION SYSTEMS

FLAT AND TAPERED RIGID INSULATION

Description

InsulFoam roof is an engineered insulation consisting of a superior closed-cell, lightweight and resilient expanded polystyrene (EPS). InsulRoof meets or exceeds the requirements of ASTM C578, Type I, Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation. InsulRoof has a nominal density of 1.0 lb/ft³. In addition, InsulFoam roof offers a long-term, stable R-value and has excellent dimensional stability, compressive strength and water resistance properties.

Uses

InsulFoam roof is a high-performance roof insulation used in numerous roofing applications.

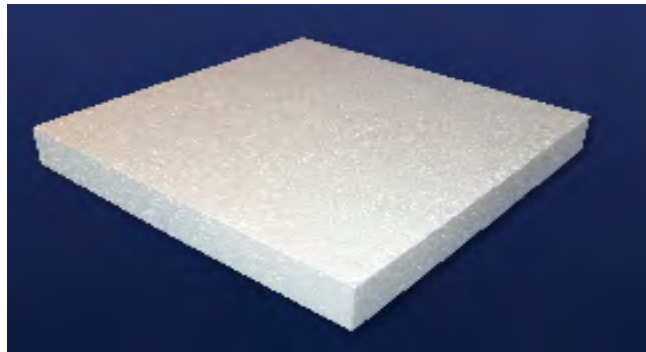
Roof Systems: Insulfoam roof is well-suited for single-ply roof applications that employ mechanically fastened or ballasted TPO, PVC, and EPDM, as well as low-sloped built-up, modified bitumen and fully adhered single-ply roofs that incorporate cover boards or slip sheets. Please consult local building codes and membrane manufacturers for system requirements.

System Compatibility: InsulFoam roof insulations are compatible with both light- and dark-colored single-ply membranes, can be applied directly to metal decks, are available in higher compressive strengths, and can be manufactured with fire-rated facers and coverboards. Please contact Insulfoam for more details.

Advantages

- **Environmentally Friendly.** It does not contain any ozone-depleting blowing agents, may contain recycled material, and is 100% recyclable if ever removed or replaced.
- **Stable R-value.** The product's thermal properties will remain stable over its entire service life. There is no thermal drift, so the product is eligible for an Insulfoam 20-year thermal performance warranty.
- **Proven Performance.** EPS has been manufactured using the same chemistry since the mid-1950s, providing proven performance.
- **Water Resistance.** InsulFoam roof does not readily absorb moisture from the environment.
- **Code Approvals.** Insulfoam insulations are recognized by the International Code Council Evaluation Service (ICC-ES), and have numerous Underwriters Laboratory and Factory Mutual Approvals. Please contact your local Insulfoam representative for details.

PREDICTABLY CONSISTENT VALUE.



Sizes

InsulFoam roof is available in 4' x 4' and 4' x 8' standard sizes with thickness from 1/4" to 40", and is readily available in custom lengths and widths with little to no impact on lead time. It is also available in tapered panels, with thickness from 0 (1/8" actual) to 40", in any slope per foot.

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Typical Physical Properties

Property	Type I	Type VIII	Type II	Type IX	Type XIV	Type XV	Test Method
Density (nom. pcf)	1.00	1.25	1.50	2.00	2.50	3.00	ASTM C303
C-Value (Conductance) - per inch BTU/(hr•ft ² •°F)							ASTM C518 or ASTM C177
@ 25°F	0.230	0.220	0.210	0.200	0.198	5.10	
@ 40°F	0.240	0.235	0.220	0.210	0.206	5.05	
@ 75°F	0.260	0.255	0.240	0.230	0.222	4.60	
R-value (Resistance) - per inch (hr•ft ² •°F)/BTU							ASTM C518 or ASTM C177
@ 25°F	4.35	4.55	4.76	5.00	5.05	0.196	
@ 40°F	4.17	4.25	4.55	4.76	4.85	0.198	
@ 75°F	3.85	3.92	4.17	4.35	4.50	0.217	
Compressive Strength (psi, 10% deformation)	10-14	13-18	15-21	25-33	40	60	ASTM D1621
Flexural Strength (min. psi)	25	30	35	50	60	75	ASTM C203
Dimensional Stability (maximum %)	2.0	2.0	2.0	2.0	2.0	2.0	ASTM D2126
Water Vapor Permeance (max. perm., 1 inch)	5.0	3.5	3.5	2.0	2.5	2.5	ASTM E96
Water Absorption (max. % vol.)	4.0	3.0	3.0	2.0	2.0	2.0	ASTM C272
Capillarity	none	none	none	none	none	none	-
Flame Spread	< 20	< 20	< 20	< 20	< 20	< 20	ASTM E84
Smoke Developed	150-300	150-300	150-300	150-300	150-300	150-300	ASTM E84

*Properties are based on data provided by resin manufacturers, independent test agencies and Insulfoam.