

# INSULROOF I

FLAT AND TAPERED RIGID INSULATION

## Description

InsulRoof I (InsulFoam I) is an engineered insulation consisting of a superior closed-cell, lightweight and resilient expanded polystyrene (EPS). InsulRoof I meets or exceeds the requirements of ASTM C578, Type I, Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation. InsulRoof I has a nominal density of 1.0 lb/ft<sup>3</sup>. In addition, InsulRoof I offers a long-term, stable R-value and has excellent dimensional stability, compressive strength and water resistance properties.

## Uses

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

**Roof Systems:** InsulRoof I 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:** InsulRoof 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.** InsulRoof I 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.



## Sizes

InsulRoof I 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", available in any slope per foot.

## Typical Physical Properties

Property	Test Method	Value
Density (nom. pcf)	ASTM C303	1.00
C-Value (Conductance) - per inch BTU/(hr•ft <sup>2</sup> •°F)	ASTM C518 @ 25°F	0.230
	or ASTM C177 @ 40°F	0.240
	@ 75°F	0.260
R-value (Resistance) - per inch (hr•ft <sup>2</sup> •°F)/BTU	ASTM C518 @ 25°F	4.35
	or ASTM C177 @ 40°F	4.17
	@ 75°F	3.85
Compressive Strength (psi, 10% deformation)	ASTM D1621	10-14
Flexural Strength (min. psi)	ASTM C203	25
Dimensional Stability (maximum %)	ASTM D2126	2.0
Water Vapor Permeance (max. perm., 1 inch)	ASTM E96	5.0
Water Absorption (max. % vol.)	ASTM C272	4.0
Capillarity	-	none
Flame Spread	ASTM E84	< 20
Smoke Developed	ASTM E84	150-300

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