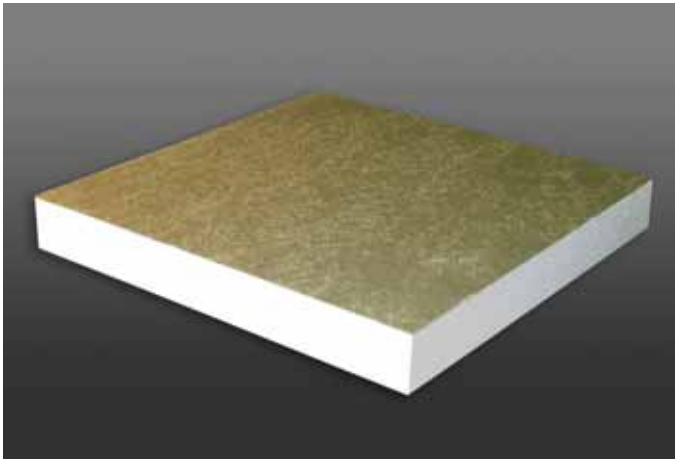


# InsulFoam SP



## Overview

Carlisle's InsulFoam SP roof insulation is made up of lightweight, high-performance closed-cell expanded polystyrene (EPS) with a durable, factory-laminated coated glass facer (CGF). Featuring a nominal density of 1.25 pounds per cubic foot (pcf), this product meets or exceeds the requirements of ASTM C578, Type VIII, Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation. InsulFoam SP offers a long-term, stable R-value and has excellent dimensional stability, compressive strength, and water-resistant properties.

InsulFoam SP is specifically designed for low-slope ballasted EPDM roofing systems, as well as fully adhered and mechanically fastened TPO, PVC, and EPDM systems. InsulFoam is compatible with Carlisle's FAST and Flexible FAST adhesives. InsulFoam SP is not compatible with solvent-based or water-based adhesives.

## Features and Benefits

- » Premium coated glass facer improves fire resistance, moisture resistance, and dimensional stability
- » Fire-rated slip sheets and thermal barriers are not required in many applications
- » Recognized in the International Code Council Evaluation Service (ICC-ES)
- » UL Classified
- » Contains no formaldehyde or ozone-depleting HCFCs
- » Contains up to 25% recycled material
- » 100% recyclable foam core
- » Does not readily absorb moisture

## Product Characteristics

InsulFoam SP is available in several standard thicknesses and is made with Type VIII expanded polystyrene with a nominal density of 1.25 pcf. Custom thicknesses are available with little impact on lead time.

### Standard Sizes

Thickness	Width	Length	Pieces per Bundle
1"	4'	8'	36
4.5"	4'	8'	8
4.75"	4'	8'	8
5.9"	4'	8'	5
7.0"	4'	8'	5

## Installation

### Installation Considerations

- » Install only as much insulation as can be covered by a roof membrane system, and/or made watertight by the end of each day.
- » InsulFoam SP should not be exposed directly to solvent- or petroleum-based adhesives and sealants.
- » Allow approximately a ¼" space between insulation and vertical surfaces or roof projections. Do not force or jam product into place.
- » Review the layout of all tapered EPS systems before loading and installing panels.
- » In re-cover applications, ensure no moisture is trapped in the new or existing roofing system.

### Loose-Laid Insulation

Install InsulFoam SP with continuous side joints and end joints, staggered so they are offset by a minimum of 12" from the end joints in adjacent rows. Insulation should abut tightly against adjacent boards. Joints greater than ½" should be filled with the same insulation that is being used in the field of the roof. If insulation is being installed over a thermal barrier or existing layer of insulation, or under a cover board, all joints must be offset a minimum of 6" between layers. When installing InsulFoam SP directly to a metal deck, the edges of the insulation parallel to the deck ribs must be solidly supported and centered on the ribs. Additionally, for metal decks, ensure that the insulation has a thickness that is adequate to span the rib openings. *When conditions dictate, in order to prevent wind blow-off or damage during installation, loose-laid insulation should be weighed down or tacked into place with a minimal quantity of mechanical fasteners.*

# InsulFoam SP

## Mechanically Fastened

Install InsulFoam SP with continuous side joints and end joints, staggered so they are offset by a minimum of 12" from the end joints in adjacent rows. Insulation should abut tightly against adjacent boards. Joints greater than ½" should be filled with the same insulation that is being used in the field of the roof. If insulation is being installed over a thermal barrier or an existing layer of insulation, or under a cover board, all joints must be offset a minimum of 6" between layers. Use an approved mechanical fastener of sufficient length to penetrate into or through the deck by the amount prescribed for the specific fastener. Fasteners should never be closer than 6" from the edges of the insulation board, and should be placed in a pattern that achieves the desired approval. Use appropriate insulation plates with the fasteners. Care must be taken to avoid over-driving or under-driving the fastener and plate assembly. When installing InsulFoam SP directly to a metal deck, the edges of the insulation parallel to the deck ribs must be solidly supported and centered on the ribs. Additionally, for metal decks, ensure that the insulation has a thickness that is adequate to span the rib openings.

*Review Carlisle specifications and details for complete installation information.*

## Typical Properties and Characteristics

Property	Test Method	Value
Density (nom. pcf)	ASTM C303	1.25
C-Value (Conductance) BTU / (hr • ft <sup>2</sup> • °F) (per inch) @25°F @40°F @75°F	ASTM C518 or ASTM C177	0.22 0.235 0.255
R-Value (Thermal Resistance) (hr • ft <sup>2</sup> • °F) / BTU (per inch) @25°F @40°F @75°F	ASTM C518 or ASTM C177	4.55 4.25 3.92
Compressive Strength (psi, 10% deformation)	ASTM D1621	13-18
Flexural Strength (min. psi)	ASTM C203	30
Dimensional Stability (maximum %)	ASTM D2126	2
Water Vapor Permeance (max. perm., 1 inch)	ASTM E96	3.5
Water Absorption (max. % vol.)	ASTM C272	3
Capillarity	-	None
Flame Spread	ASTM E84	<20
Smoke Developed	ASTM E84	150-300

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

## LEED® Information

Pre-consumer Recycled Content	Up to 25%
Post-consumer Recycled Content	0%
Manufacturing Location	Anchorage, AK Puyallup, WA Dixon, CA Chino, CA Mead, NE Aurora, CO Phoenix, AZ Lakeland, FL