InsulFoam® I

Description

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

Uses

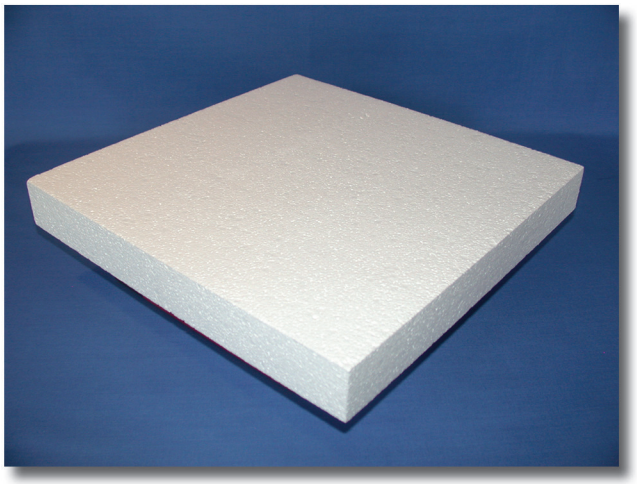
InsulFoam I is a quality EPS product and is used in numerous building construction applications.

Roofing: InsulFoam I is well-suited for single ply roof applications that employ mechanically fastened or ballasted TPO, PVC, EPDM and CSPE, 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.

Other Construction Applications: InsulFoam I is used in assorted building applications, including pre-stressed and pre-cast structural concrete panels, metal roof flute-fill, siding backer board, building sheathing, roads and bridge fill, below-slab and perimeter insulation, and numerous other geofoam applications.

Advantages

- *Environmentally Friendly.* It contains no formaldehyde or ozone-depleting HCFCs, contains recycled material, and is 100% recyclable if ever removed or replaced.
- *Stable R-Value.* Designers are well served knowing 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.* The same fundamental EPS chemistry has been in use since the mid-1950s, so the actual performance of the product is well known.
- *Water Resistant.* InsulFoam I does not readily absorb moisture from the environment.
- *Code Approvals.* InsulFoam I is recognized by the International Code Council Evaluation Service (ICC-ES), and has numerous Underwriters Laboratory and Factory Mutual Approvals. Please contact your local Insulfoam representative for details.



Sizes

InsulFoam I is typically available in 4' x 4' and 4' x 8' 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.

Typical Tested Physical Properties*

Property	Test Method	Value
Density (nom. pcf)	ASTM C303	1.00
C-Value (Conductance) - per inch BTU/(hr•ft²•°F) @ 25 °F @ 40 °F @ 75 °F	ASTM C518 or ASTM C177	0.230 0.240 0.260
R-Value (Resistance) - per inch (hr•ft²•°F)/BTU @ 25 °F @ 40 °F @ 75 °F	ASTM C518 or ASTM C177	4.35 4.17 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.**