

INSULGRADE II

20 PSI MOISTURE-RESISTANT INSULATION

Description

InsulGrade II (InsulFoam II) is an engineered insulation consisting of a superior closed-cell, lightweight and resilient expanded polystyrene (EPS). InsulGrade II meets or exceeds the requirements of ASTM C578, Type II, Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation. InsulGrade II has a nominal density of 1.5 lb/ft³. In addition, InsulGrade II offers a long-term, stable R-value and has excellent dimensional stability, compressive strength and water resistance properties.

Uses

InsulGrade II is successfully used in numerous commercial, industrial and residential applications. It is designed to insulate the foundation wall or slab and protect the waterproofing or damp proofing, especially during backfilling.

Typical Construction Applications: InsulGrade II is used in assorted building applications, including pre-stressed and pre-cast structural concrete panels, siding backer board, building sheathing, roads and bridge fill, below-slab and perimeter insulation, architectural shapes, docks and piers, void fill, foundations, retaining walls and numerous other geofoam applications.

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 EPS chemistry since the mid-1950s, providing proven performance.
- **Water Resistance.** InsulGrade II 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

InsulGrade II is available in 4' x 4' and 4' x 8' standard sizes with thicknesses 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	1.50
C-Value (Conductance) - per inch BTU/(hr•ft ² •°F)	ASTM C518	0.210
	or	
	ASTM C177	0.220
R-value (Resistance) - per inch (hr•ft ² •°F)/BTU	ASTM C518	4.76
	or	4.55
	ASTM C177	4.17
Compressive Strength (psi, 10% deformation)	ASTM D1621	15-21
Flexural Strength (min. psi)	ASTM C203	35
Dimensional Stability (maximum %)	ASTM D2126	2.0
Water Vapor Permeance (max. perm., 1 inch)	ASTM E96	3.5
Water Absorption (max. % vol.)	ASTM C272	3.0
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.