

Description

Insulfoam Below Grade Insulation (InsulFoam) is an engineered insulation consisting of a superior closed-cell, lightweight and resilient expanded polystyrene (EPS). Insulfoam Below Grade Insulation meets or exceeds the requirements of ASTM C578, Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation. Insulfoam's Below Grade Insulation can be manufactured in a wide range of block and panel sizes, and in a wide assortment of shapes and densities. In addition, the insulation offers a long-term, stable R-Value and has excellent dimensional stability, compressive strength and water resistance properties. Insulfoam Below Grade Insulation can contribute toward environmental credentialing including LEED[®] credits.

Uses

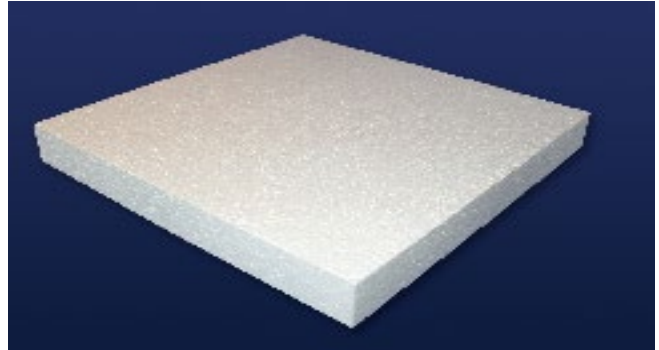
Insulfoam Below Grade Insulation is successfully used in numerous commercial, industrial and residential applications, insulating the foundation wall or slab and protecting the waterproofing or damp proofing, especially during backfilling. The following are examples of the many applications:

- Architectural Shapes
- Below-grade Insulation
- Docks & Piers
- Void Fill
- Ramps & Bridge Approaches
- Freezers & Cold Storage
- Drainage Board
- Pre-cast/Pre-stressed Concrete Panels
- Road Base
- Foundations
- Retaining Walls

Advantages

- **Environmentally Friendly.** Insulfoam Below Grade Insulation does not contain any ozone-depleting blowing agents, may contain recycled material and is 100% recyclable.
- **Moisture Resistance.** Insulfoam Below Grade Insulation does not readily absorb moisture from the environment.
- **Insect and Mold Resistance.** Insulfoam Below Grade Insulation does not sustain mold and mildew growth and can be manufactured with an inert additive that deters termites and carpenter ants.
- **Stable R-Value.** The product's thermal properties will remain stable over its entire service life.
- **Long Term Warranty.** With no thermal drift, Insulfoam warrants this product with a 20-year Thermal Performance Warranty.
- **Proven Performance.** EPS has been manufactured using the same chemistry since the mid-1950s, providing proven performance.
- **Varying Compressive Strengths.** More available compressive strengths than comparable below grade products.

TIME TESTED PROTECTION.



- **Cost Effective.** Insulfoam Below Grade is typically less expensive than comparable insulation products.
- **Code Approvals.** Insulfoam insulations are recognized by the International Code Council Evaluation Service (ICC-ES), for numerous applications. Please contact your local Insulfoam representative for details.

Sizes

Insulfoam Below Grade Insulation is offered in an assortment of sizes and shapes and is readily available in custom lengths, widths and densities with little to no impact on lead time.

Installation Recommendations

Please refer to the appropriate Insulfoam Below Grade installation guidelines for recommended installation procedures, available at www.insulfoam.com or by asking your local Representative.



Typical Tested Physical Properties of Insulfoam Below Grade Insulation*

Property	Type I	Type VIII	Type II	Type IX	Type XIV	Type XV	Test Method
Nominal Density (pcf)	1.0	1.25	1.5	2.0	2.50	3.0	ASTM C303
C-Value (Conductance) BTU/(hr•ft²•°F) (per inch) @ 25° F @ 40° F @ 75° F	.230 .240 .260	.220 .235 .255	.210 .220 .240	.200 .210 .230	0.198 0.206 0.222	0.196 0.198 0.217	ASTM C518 or ASTM C177
R-Value (Thermal Resistance) (hr•ft²•°F)/BTU (per inch) @ 25° F @ 40° F @ 75° F	4.35 4.2 3.9	4.55 4.25 3.92	4.76 4.55 4.17	5.00 4.76 4.35	5.05 4.85 4.50	5.10 5.05 4.60	ASTM C518 or ASTM C177
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%	2%	2%	2%	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.

