

INSULWALL

FIRE-RATED INSULATION

Description

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

Uses

InsulWall is successfully used in numerous commercial, industrial and residential applications. The following are examples of the many InsulWall applications:

- Commercial Roofing Insulation
- Sheathing
- Interior Walls
- Tongue & Groove Insulation
- Continuous Insulation
- Stucco Systems
- Cavity Walls
- Exterior Insulating Finish Systems (EIFS)
- Siding Underlayment
- Basement Walls
- Retaining Walls
- Attics & Crawl Spaces
- Gable-Ends
- Architectural Shapes and finishes

Advantages

- **Environmentally Friendly.** InsulWall does not contain any ozone-depleting blowing agents, may contain recycled material and is 100% recyclable.
- **Insect and Mold Resistance.** InsulWall can be manufactured with an inert additive that deters termites and carpenter ants. InsulWall does not sustain mold and mildew growth.
- **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.** InsulWall does not readily absorb moisture from the environment.
- **Cost Effective.** Typically less expensive than comparable insulation products.
- **Code Approvals.** InsulWall insulations are recognized by the International Code Council Evaluation Service (ICC-ES), for numerous applications. Please contact your local Insulfoam representative for details.

Sizes

InsulWall 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 InsulWall application sheets for recommended installation procedures.

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Typical Properties of InsulWall*

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 C518 or ASTM C177
C-Value (Conductance) BTU/(hr•ft ² •°F)							ASTM C518 or ASTM C177
(per inch)							
@ 25° F	.230	.220	.210	.200	0.198	0.196	
@ 40° F	.240	.235	.220	.210	0.206	0.198	
@ 75° F	.260	.255	.240	.230	0.222	0.217	
R-value (Thermal Resistance) (hr•ft ² •°F)/BTU							ASTM C518 or ASTM C177
(per inch)							
@ 25° F	4.35	4.55	4.76	5.00	5.05	5.10	
@ 40° F	4.2	4.25	4.55	4.76	4.85	5.05	
@ 75° F	3.9	3.92	4.17	4.35	4.50	4.60	
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.