

Description

R-Tech® is an engineered rigid insulation consisting of a superior closed-cell, lightweight and resilient expanded polystyrene (EPS) with advanced polymeric laminate facers. R-Tech is available with factory adhered metallic-reflective facers, white facers or a combination of the two. R-Tech is the same high-quality as our InsulFoam brand insulations and meets or exceeds the comprehensive strength, flexural strength, dimensional stability and water absorption requirements of ASTM C578, *Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation*. R-Tech is an ENERGY STAR® qualified insulation and can contribute toward LEED® credits.

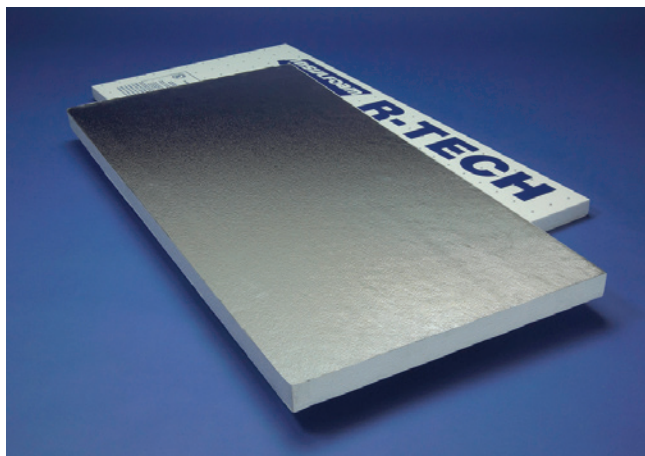
Uses

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

- Interior & Exterior Wall Insulation
- EIFS & Stucco Insulation
- Single-Ply Roof Insulation
- Roof recover board
- Continuous Below-grade Insulation
- Foundation, Perimeter Slab & Basement Insulation
- Retaining Walls
- Drainage Board
- Waterproofing Protection Board
- Freezers & Cold Storage

Advantages

- **Environmentally Friendly.** R-Tech does not contain any ozone depleting blowing agents or dyes, may contain recycled material and the foam core is 100% recyclable.
- **Moisture Resistance.** R-Tech facers provide a surface that is virtually impervious to moisture and the InsulFoam EPS core does not readily absorb moisture from the environment.
- **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.
- **Varying Compressive Strengths.** More available compressive strengths than comparable below grade 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.
- **Insect and Mold Resistance.** R-Tech is manufactured with an inert additive that deters termites and carpenter ants. R-Tech does not sustain mold and mildew growth.



- **Jobsite Durability.** With a polymeric facer on either side of it, R-Tech is extremely flexible and durable.
- **Cost Effective.** R-Tech is typically less expensive than other comparable insulation products.
- **Proven Performance.** EPS has been manufactured using the same chemistry since the mid-1950s, providing proven performance.
- **Enhanced R-Values.** In certain applications, increased R-Values can be obtained by placing the metallic reflective side of the R-Tech towards a dead air space. R-Value gain is dependent on the amount of dead air space between the R-Tech and outer surface. R-Value gains are based on the ASHRAE Handbook of Fundamentals. See the attached Effective R-Value chart.
- **User Friendly.** R-Tech can be ordered with the InsulSnap™ feature which scores the product longitudinally at any pre-ordered interval (commonly 16" or 24" o.c.). The InsulSnap feature minimizes labor by enabling the installer to cleanly break the product at the desired width while also minimizing product breakage and waste.

Sizes

R-Tech is available in 4' x 8' sheets with thicknesses from 3/8" to 5" in 1/8" increments. R-Tech can also be ordered with the InsulSnap feature which allows the end user to cleanly break the 4' x 8' sheets into any desired width. All of the R-Tech insulation products are available with metallic reflective and InsulFoam white facers. In addition, custom sizes and densities are available upon request with little or no impact on lead time. Several R-Tech products are also available as 200 sf bundles of Fanfold.

Typical Tested Physical Properties of Insulfoam R-Tech Insulation*

Property	R-Tech I 10 PSI	R-Tech X 15 PSI	R-Tech IV 25 PSI	R-Tech VI 40 PSI	R-Tech VII 60 PSI	Test Method
Nominal Density (pcf)	1.0	1.5	2.0	2.4	3.0	ASTM C303
C-Value (Conductance) (hr•ft ² •°F)/BTU (per inch)						ASTM C518 or ASTM C177
	@ 25° F	.23	.21	.20	.20	
	@ 40° F	.24	.22	.21	.21	
	@ 75° F	.26	.24	.23	.22	
R-Value (Thermal Resistance) (hr•ft ² •°F)/BTU (1 inch)						ASTM C518 or ASTM C177
	@ 25° F	4.4	4.8	5	5.0	
	@ 40° F	4.2	4.6	4.8	4.9	
	@ 75° F	3.9	4.2	4.4	4.5	
Effective R-Values ^a (R-Tech MR + Air Space) ^b (per inch)						ASTM C518 or ASTM C177
	@ 25° F	7.20	7.6	7.80	7.85	
	@ 40° F	7.00	7.4	7.60	7.70	
	@ 75° F	6.70	7.0	7.20	7.30	
Compressive Strength (psi, 10% deformation)	10	15	25	40	60	ASTM D1621
Flexural Strength (min. psi)	33	40	50	60	75	ASTM C203
Dimensional Stability (maximum %)	2%	2%	2%	2%	2%	ASTM D2126
Water Vapor Transmission (max. perm., 1 inch)	< 1.0	< 1.1	< 1.1	< 1.1	< 1.1	ASTM E96
Water Absorption (max. % vol.)	< 1.0	0.3	0.3	0.3	0.3	ASTM C272
Capillarity	none	none	none	none	none	–
Flame Spread	< 20	< 20	< 20	< 20	< 20	ASTM E84
Smoke Developed	150-200	150-300	150-300	150-300	150-300	ASTM E84

* Properties are based on data provided by resin manufacturers, independent test agencies and Insulfoam.

^a Effective R-Values determined using R-Tech I. Higher Density products provide higher R-Values. The type of construction application and the depth of the air space will also impact the actual Effective R-Value.

^b Requires 0.75" - 3.50" dead air space and the R-Tech MR facer towards the dead air space.

Installation Recommendations

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