



Description

R-Tech® Fanfold is a high-performance, 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. The core of R-Tech is the same high-quality as our InsulFoam® brand insulations and meets or exceeds the requirements of ASTM C578, *Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation*. R-Tech has excellent dimensional stability, compressive strength and water-resistant properties. R-Tech Fanfold is an Energy Star® qualified insulation and qualifies for LEED points.

Uses

R-Tech Fanfold has been used successfully for numerous commercial, industrial and residential applications. The following are examples of the many R-Tech Fanfold uses:

- Siding Underlayment
- Basement Walls
- Cavity Walls
- Craw Spaces
- Interior Walls
- Radiant-Heated Floors
- Below Grade Insulation
- Waterproofing Protection Board

Advantages

- **Labor Savings.** R-Tech Fanfold is available in 100 ft² (one-square) and 200 ft² (two-square) bundles, and is lightweight enough that the average contractor can carry 400 ft² at one time.
- **Environmentally Friendly.** R-Tech Fanfold contains no dyes, formaldehyde or ozone-depleting HCFCs, may contain recycled material and the foam core is 100% recyclable.
- **Stable R-Value.** R-Tech Fanfold has no thermal drift. Designers are well served knowing the R-Tech Fanfold thermal properties will remain stable over its entire service life. R-Tech is eligible for an Insulfoam 20-Year Thermal Performance Warranty – a warranty that's not prorated or limited to a percentage of the published R-Value.
- **Water-Resistant.** R-Tech facers provide a surface that is virtually impervious to moisture.
- **Insect and Mold Resistant.** 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 the R-Tech, it is an extremely flexible and durable insulation.
- **Cost-Effective.** R-Tech is typically less expensive than comparable insulation products.



- **Proven Performance.** The same fundamental chemistry has been in use since the mid-1950s, so the actual performance of the product is well known.
- **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.

Sizes

R-Tech Fanfold is packaged accordian-style and is available in one- and two-square bundles. R-Tech Fanfold is available in thicknesses of 1/4", 3/8", 1/2" and 3/4" and has a standard nominal density of 1 pcf. Individual panel sizes within the fanfold bundle are 2' x 4'. Different densities are available upon request.

Installation Recommendations

Please refer to the appropriate R-Tech application sheets for recommended installation procedures.

Typical Physical Properties of R-Tech Fanfold

Property	Type I	Test Method
Nominal Density (pcf)	1.0	ASTM C303
C-Value (Conductance) BTU/(hr•ft ² •°F) (per inch) @ 25° F @ 40° F @ 75° F	.23 .24 .26	ASTM C518 or ASTM C177
R-Value (Thermal Resistance) (hr•ft ² •°F)/BTU (per inch) @ 25° F @ 40° F @ 75° F	4.35 4.17 3.85	ASTM C518 or ASTM C177
Compressive Strength (psi, 10% deformation)	13	ASTM D1621
Flexural Strength (psi)	33	ASTM C203
Dimensional Stability (maximum %)	< 2%	ASTM D2126
Water Vapor Transmission (perms)	< 1.0	ASTM E96
Absorption (% vol.)	< 1.0	ASTM C272
Capillarity	none	–
Flame Spread	< 20	ASTM E84
Smoke Developed	150 - 300	ASTM E84

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

Effective R-Values ^a (metallic-reflective facer and dead air space)

R-Tech Thickness	Design Temp.	Effective R-Value (R-Tech MR + Air Space) ^b
1/4"	40° F	4.04
	75° F	3.96
3/8"	40° F	4.56
	75° F	4.44
1/2"	40° F	5.09
	75° F	4.93
3/4"	40° F	6.13
	75° F	5.89

^a Effective R-Values determined using InsulFoam I. Higher density InsulFoam products will 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.