

# R-TECH<sub>FF</sub>

## Premium Fanfold Wall Insulation

### Description

R-Tech FF (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 EPS as our InsulFoam 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 resistance properties. R-Tech FF is an ENERGY STAR® qualified insulation and can contribute towards LEED® credits.

### Uses

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

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

### Advantages

- **Labor Savings.** R-Tech FF is available in 100 ft<sup>2</sup> (one-square) and 200 ft<sup>2</sup> (two-square) bundles, and is lightweight enough that the average contractor can carry 400 ft<sup>2</sup> at one time.
- **Environmentally Friendly.** R-Tech FF does not contain any ozone-depleting blowing agents, may contain recycled material and the foam core is 100% recyclable.
- **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.
- **Water Resistance.** R-Tech facers provide a surface that is virtually impervious to moisture.



- **Insect and Mold Resistance.** R-Tech can be manufactured with an inert additive that deters termites and carpenter ants. R-Tech FF 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 comparable insulation products.
- **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 FF is available in 4' x 8' sheets in thicknesses ranging from 3/8" to 5" in 1/8" increments. R-Tech FF 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. In addition, custom sizes are available upon request with little or no impact on lead times.

### Installation Recommendations

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

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### 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 <sup>2</sup> •°F) (per inch)	@ 25° F .23 @ 40° F .24 @ 75° F .26	ASTM C518 or ASTM C177
R-value (Thermal Resistance) (hr•ft <sup>2</sup> •°F)/BTU (per inch)	@ 25° F 4.35 @ 40° F 4.2 @ 75° F 3.9	ASTM C518 or ASTM C177
Compressive Strength (psi, 10% deformation)	13	ASTM D1621
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<sup>a</sup> (metallic-reflective facer and dead air space)

R-Tech Thickness	Design Temp.	Effective R-value (R-Tech MR + Air Space) <sup>b</sup>
1/4"	25° F	3.90
	40° F	3.85
	75° F	3.80
3/8"	25° F	4.50
	40° F	4.40
	75° F	4.30
1/2"	25° F	5.00
	40° F	4.90
	75° F	4.80
3/4"	25° F	6.10
	40° F	5.90
	75° F	5.70

<sup>a</sup> 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.

<sup>b</sup> Requires 0.75" - 3.50" dead air space and the R-Tech MR facer towards the dead air space.