

# R-TECH<sup>®</sup> FF

## PREMIUM FANFOLD ROOFING UNDERLAYMENT

### Description

R-Tech FF is a high-performance sheathing consisting of a superior closed-cell, lightweight and resilient expanded polystyrene (EPS) with advanced polymeric laminate facers. The core of R-Tech is the same high-quality as our InsulFoam<sup>®</sup> brand insulations, and meets or exceeds the requirements of ASTM C578, Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation. In addition, R-Tech has excellent dimensional stability, compressive strength and water resistant properties.

### Uses

R-Tech FF is ideal in recover applications, and is well-suited for single-ply roof applications that employ mechanically fastened or ballasted TPO, PVC, EPDM and CSPE membranes. Consult local building codes and membrane manufacturers for system requirements.

### Advantages

- **Labor Savings.** R-Tech FF comes in 200-sq. ft. bundles, and is lightweight enough that the average roof mechanic can carry an R-Tech bundle under each arm (a total of 4 squares). Competing 4' x 8' recover products would require 13 sheets to cover 4 squares.
- **User Friendly.** The R-Tech manufacturing process ensures that it will lay flat during installation, eliminating the thermoplastic roof system seam-welding issues that are experienced with other FF products.
- **Versatile.** The unique polymeric laminate facers allow single-ply membranes, including PVC, to be installed directly over R-Tech without additional slip sheets or divorcement.
- **Cost-Effective.** R-Tech is typically less expensive than other recover products, requires fewer fasteners per square foot, and is easier to handle.
- **Environmentally Friendly.** It contains no formaldehyde or HCFCs, may contain recycled material, and has a foam core that is 100% recyclable.
- **Proven Performance.** The same fundamental chemistry has been in use since the mid-1950s, so the actual performance of the product is well known.
- **Water-Resistant.** R-Tech is hydrophobic (does not readily absorb moisture) and does not promote the migration of moisture into the insulation.

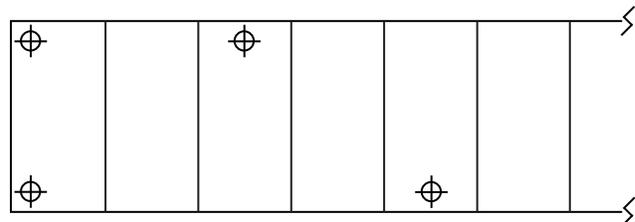


- **Code Approvals.** R-Tech has numerous recover listings with Underwriters Laboratories. Please refer to UL's Roofing Materials Directory or contact your Insulfoam representative for additional information.

### Sizes

R-Tech FF is available in nominal thicknesses of 3/8", 1/2" and 3/4" with the 4' x 50' FF (2 squares). Individual panel sizes within the FF bundle are 2' x 4'. R-Tech is also available in 4' x 8' units.

### Installation Recommendations



- One fastener is to be placed at each corner of the leading and trailing edges, and thereafter at a rate of one fastener every 12 square feet placed on alternating sides of the sheet.
- Fasteners are to be 6" from the board's edge.
- When used with dark colored membranes, R-Tech should be installed with the silver or metallic side facing up.

**Note:** Some membrane manufacturers may require a higher density of fasteners for their warranted systems. Consult the membrane manufacturer for specific requirements.

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## Typical Physical Properties of R-Tech\*

Property	Type I	Type VIII	Type II	Type IX	Test Method
<b>Compressive Strength</b> (psi, 10% deformation)	13	16	20	28	ASTM D1621
<b>Flexural Strength</b> (psi)	33	40	50	70	ASTM C203
<b>Water Vapor Transmission</b> (perms)	< 1.0	< 1.0	< 1.0	< 1.0	ASTM E96
<b>Absorption</b> (% vol.)	< 1.0	< 1.0	< 1.0	< 1.0	ASTM C272

## Typical Physical Properties of InsulFoam (foam core)\*

Property	Type I	Type VIII	Type II	Type IX	Test Method
<b>Nominal Density</b> (pcf)	1.0	1.25	1.5	2.0	ASTM C303
<b>C-Value (Conductance)</b> <b>BTU/(hr•ft<sup>2</sup>•°F)</b> (per inch)					ASTM C518 or ASTM C177
	@ 25° F .23	.22	.21	.20	
	@ 40° F .24	.235	.22	.21	
	@ 75° F .26	.255	.24	.23	
<b>R-value (Thermal Resistance)</b> <b>(hr•ft<sup>2</sup>•°F)/BTU</b> (per inch)					ASTM C518 or ASTM C177
	@ 25° F 4.35	4.54	4.76	5.00	
	@ 40° F 4.17	4.25	4.55	4.76	
	@ 75° F 3.85	3.92	4.17	4.35	
<b>Compressive Strength</b> (psi, 10% deformation)	10 - 14	13 - 18	15 - 21	25 - 33	ASTM D1621
<b>Flexural Strength</b> (psi)	25 - 30	32 - 38	40 - 50	55 - 75	ASTM C203
<b>Dimensional Stability</b> (maximum %)	< 2%	< 2%	< 2%	< 2%	ASTM D2126
<b>Water Vapor Transmission</b> (perms)	2.0 - 5.0	1.5 - 3.5	1.0 - 3.5	0.6 - 2.0	ASTM E96
<b>Absorption</b> (% vol.)	< 4.0	< 3.0	< 3.0	< 2.0	ASTM C272
<b>Capillarity</b>	none	none	none	none	-
<b>Flame Spread</b>	< 20	< 20	< 20	< 20	UL 723
<b>Smoke Developed</b>	150 - 300	150 - 300	150 - 300	150 - 300	UL 723

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