

Henry® R-Tech®



Description

Henry R-Tech is an engineered rigid insulation consisting of a superior closed-cell, lightweight and resilient expanded polystyrene (EPS) core with a printed, and a metallic-reflective polymeric facer. R-Tech meets or exceeds the requirements of ASTM C578, Type I, Standard Specification for Rigid Cellular Polystyrene Thermal Insulation. In addition, R-Tech has excellent dimensional stability, compressive strength and water resistance properties. R-Tech is an ENERGY STAR® qualified insulation and can contribute towards LEED® credits.

Uses

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

- Interior & Exterior Wall Insulation
- Siding & Stucco Insulation
- Single-Ply Roof Insulation
- Roof Recover Board
- Continuous Below-Grade Insulation
- Foundation, Perimeter, Slab & Basement Insulation
- Retaining Walls
- Waterproofing Protection Board
- Freezers & Cold Storage

Advantages

- **Environmentally Friendly.** R-Tech does not contain any dyes, may contain recycled material and the foam core is 100% recyclable.
- **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.
- **Water Resistance.** R-Tech facers provide a surface that is virtually impervious to moisture.
- **Jobsite Durability.** With a polymeric facer on either side of it, R-Tech is extremely flexible and durable.
- **Stable R-value.** The thermal properties of R-Tech will remain stable over its entire service life. There is no thermal drift.
- **Cost Effective.** R-Tech is typically less expensive than other comparable insulation products, its factory laminated facer also offers installation savings.
- **Proven Performance.** EPS has been manufactured using the same chemistry since the mid-1950s, providing proven performance.
- **Enhanced R-value.** In certain applications, increased R-value 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 “Effective R-value chart” on other side.

Sizes

R-Tech is available in 4' x 8' sheets with thicknesses of: 1/2", 1", 1-1/2", 2" and 3".

Typical Physical Properties of R-Tech*

Property	R-Tech	Test Method
Nominal Density (pcf)	1.0	ASTM C303
C-value (Conductance) BTU/(hr-ft ² -°F)		ASTM C518 or ASTM C177
(per inch)		
@ 25° F	.23	
@ 40° F	.24	
@ 75° F	.26	
R-value (Thermal Resistance) (hr-ft ² -°F)/BTU		ASTM C518 or ASTM C177
(per inch)		
@ 25° F	4.35	
@ 40° F	4.17	
@ 75° F	3.85	
Compressive Strength (psi, 10% deformation)	10	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 Henry.

For more information, visit www.henry.com or for technical assistance call us at 800-486-1278. Refer to the Safety Data Sheet prior to using this product. The Safety Data Sheet is available at www.henry.com or by emailing Henry Product Support at productsupport@henry.com or by calling 800-486-1278.

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Effective R-value^a

(metallic-reflective facer and dead air space)

R-Tech Thickness	Design Temp.	Effective R-value (R-Tech MR + Air Space) ^b
0.5"	40° F	4.90
	75° F	4.80
1.00"	40° F	7.00
	75° F	6.70
1.50"	40° F	9.10
	75° F	8.60
2.00"	40° F	11.10
	75° F	10.50
3.00"	40° F	15.40
	75° F	14.50

a Effective R-value determined using R-Tech 1.0. Higher density R-Tech products will provide higher R-value gains. 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.