

R-TECH®

CW CAVITY WALL INSULATION

BY INSULFOAM

Description

R-Tech CW (Cavity Wall) is an engineered rigid insulation consisting of a superior closed-cell, lightweight and resilient expanded polystyrene (EPS) with advanced polymeric laminate facers. R-Tech CW is available with factory laminated MR (metallic-reflective) facers, white facers or a combination of the two. The R-Tech facers shed water to reduce moisture build-up in the cavity wall. 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.

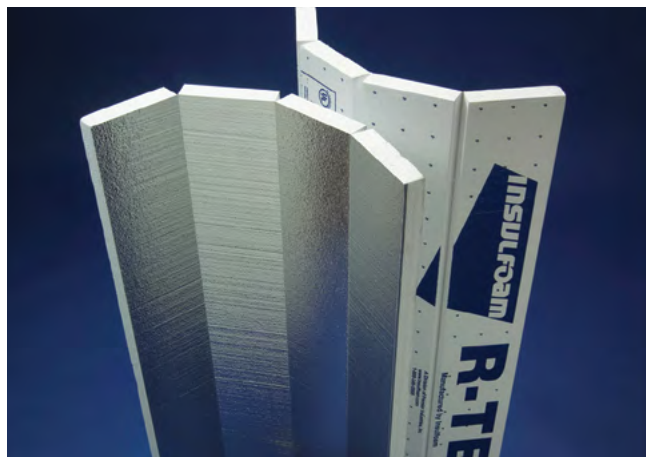
Uses

R-Tech Cavity Wall is designed for both commercial and residential interior wall applications.

Advantages

- **Enhanced R-values.** Increased R-values can be obtained by placing the MR side of the R-Tech towards the dead air space within the interior wall. R-value gain is dependent on the amount of dead air space between the R-Tech and the inner wall. R-value gains are based on the ASHRAE Handbook of Fundamentals.
- **Jobsite Durability.** With a polymeric facer on either side of it R-Tech CW is extremely flexible and durable insulation.
- **Water Resistance.** R-Tech CW facers provide a surface that is virtually impervious to moisture.
- **Stable R-value.** The product's thermal properties will remain stable over its entire service life. There is no thermal drift, so Insulfoam offers a 20-Year Thermal Performance Warranty.
- **Cost Effective.** R-Tech CW offers the highest R-Value per dollar, is typically less expensive than other interior wall insulations, and available in custom sizes to help with installation labor savings.
- **Environmentally Friendly.** R-Tech CW does not contain any ozone-depleting blowing agents, may contain recycled material, the foam core is 100% recyclable, is an ENERGY STAR® qualified insulation and can contribute towards LEED® credits.
- **Insect and Mold Resistance.** R-Tech CW can be manufactured with an inert additive that deters termites and carpenter ants. R-Tech does not sustain mold and mildew growth.
- **Proven Performance.** EPS has been manufactured using the same chemistry since the mid-1950s, providing proven performance.
- **Code Approvals.** Insulfoam insulations are recognized by the International Code Council Evaluation Service (ICC-ES), and have numerous Underwriters Laboratory and Factory Mutual Approvals.

THE PROVEN STANDARD FOR WALLS.



Sizes

R-Tech CW is available in 4' x 8' sheets with thicknesses ranging from .5" to 4.5". R-Tech CW can also incorporate the InsulSnap feature which allows the end user to cleanly break the 4' x 8' sheets into any desired width. Custom sizes are available upon request.

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

R-Tech Thickness	Design Temp. °F	Effective R-value (R-Tech MR + Air Space) ^b
0.5"	40	4.4
	75	4.3
0.75"	40	5.4
	75	5.2
1.00"	40	6.5
	75	6.2
1.25"	40	7.5
	75	7.1
1.50"	40	8.6
	75	8.1
1.75"	40	9.6
	75	9.1
2.00"	40	10.6
	75	10.0
2.25"	40	11.7
	75	11.0
2.50"	40	12.7
	75	11.9

a Effective R-values determined using InsulFoam I. Higher density InsulFoam products will provide higher R-values.

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

INSULATION ENGINEERED TO MAKE A DIFFERENCE.

Typical Physical Properties of R-Tech*

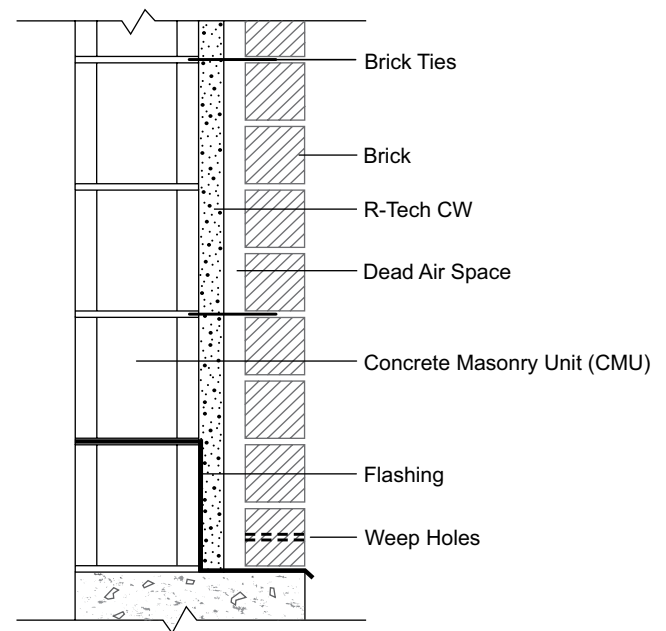
Property	Type I	Test Method
Nominal Density (pcf)	1.0	ASTM C303
C-Value (Conductance) BTU/(hr•ft ² •°F) (per inch)	@ 25° F	ASTM C518 or ASTM C177
	@ 40° F	.24
	@ 75° F	.26
R-value (Thermal Resistance) (hr•ft ² •°F)/BTU (per inch)	@ 25° F	ASTM C518 or ASTM C177
	@ 40° F	4.17
	@ 75° F	3.85
Compressive 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.

Physical Properties

Please refer to the appropriate R-Tech data sheet for typical physical properties.

Typical Cavity Wall Application



Installation Recommendations

1. Cut the inner wall mortar joints flush with the CMU to provide an even surface for the R-TECH Expanded Polystyrene (EPS) insulation board.
2. Beginning at the bottom of the inner wythe, install R-TECH boards with the metallic reflective facer towards the dead-air space. Cut R-TECH to fit snugly around all through-wall penetrations.
3. Secure R-TECH in conformance with local building codes and/or specifier recommendations. Always keep the R-TECH above the level of the outer wall. Leave sufficient space (at least 1") between the R-TECH insulation and the outer wythe. You can use an EPS-compatible adhesive or mechanical fastener.
4. Stagger additional layers of R-TECH and butt the ends tightly.
5. If an additional air barrier is needed or desired, tape all joints with InsulFoam Poly-Guard 136 tape or other code-compliant sheathing tape.