

EPS Cavity-Wall Insulation



It is easily installed over concrete masonry unit (CMU), Steel Stud or Wood Framed construction.

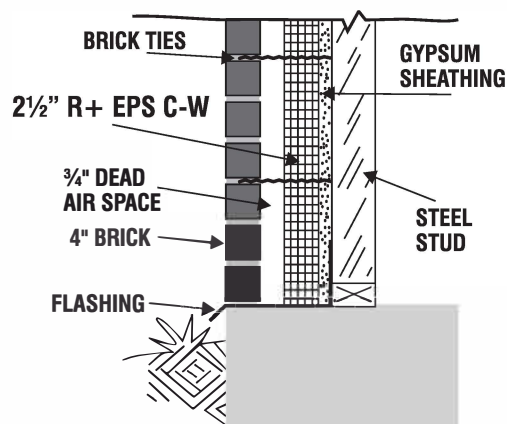
More than half of a building's heat is lost through inadequately insulated exterior walls. Rising energy costs make it imperative that a building's exterior walls are well insulated. R+ EPS Cavity-Wall Insulation will prevent 70% of heat loss, resulting in savings of up to 30% on energy bills.

R+ EPS Cavity-Wall Insulation creates a very comfortable living environment, because the temperatures inside your building will not be constantly fluctuating between hot and cold due to changes in outside temperature changes. Stabilizing your building's inside temperatures will reduce heating costs in the winter and lower cooling costs in the summer. R+ EPS Cavity-Wall; is a composite of versatile, high-performance, closed-cell, lightweight and resilient expanded polystyrene EPS combined with a strong film facing. R+ EPS C-W Insulation prevents any moisture from building-up in the cavity of a building wall. R+EPS C-W Insulation is available in a variety of sizes, thickness and densities to get the job done right.

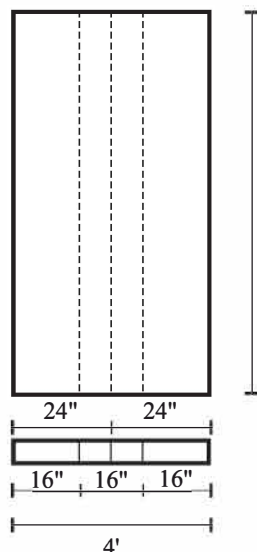
Benefits of R+ EPS C-W (Cavity-Wall) Insulation for commercial and residential cavity wall applications.

- + **Increase R-Values:** Enhanced R-Values can be obtained by placing the Metallic-Reflective facer side of C-W towards the dead air space within the cavity of the exterior stud wall. Additional R+ system R-Value gains are based on ASHRAE Handbook-Fundamentals. See attached chart.
- + **Stable R-Value:** R+ EPS C-W Insulation has NO thermal drift or decreasing R-Values over time. Its thermal properties remain stable and constant during its service life.
- + **Less Cost per R-Value:** Dollar for dollar R+ EPS is the most cost effective rigid insulation on the market. Lower cost per R, with comparable performance to Extruded Polystyrene and Polyisocyanurate insulation.
- + **Moisture Resistant:** R+ EPS C-W's laminated White and Metallic-Reflective film facers provide a surface that is virtually impervious to moisture.
- + **Durable:** R+ EPS C-W Insulation's tough film facer on either side of our EPS foam is extremely tough, durable and flexible, it can handle the toughest jobsite conditions.
- + **Easy to Handle and Install:** R+ EPS C-W Insulation is available in a variety of thicknesses and sizes, and can be ordered with "Score-It", our multiple pre-cut widths (commonly 16" or 24") to accommodate stud spacing or brick ties for masonry applications. This feature allows installers to increase their productivity on the jobsite. Custom sizes and densities are also available upon request.
- + **Environmentally Friendly:** R+ EPS C-W Insulation contains no dyes, ozone-depleting CFC's, HFC's, HCFC's or formaldehyde. It is the Only Rigid Insulation manufactured with recycled content that qualifies for LEED points and the EPS core is 100% recyclable.
- + **Insect and Mold Resistant:** R+ EPS C-W Insulation can be manufactured with an inert additive that deters termites and carpenter ants. R+ EPS C-W Insulation does not sustain Mold and Mildew growth.

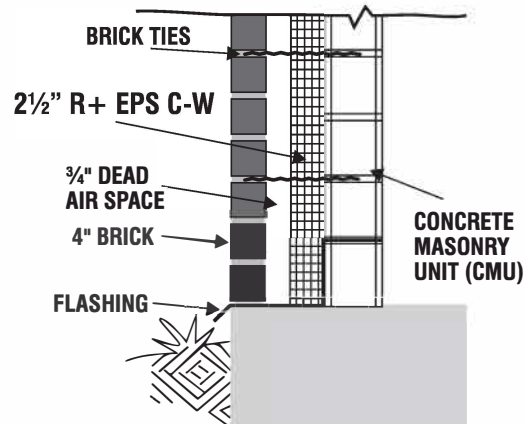
TYPICAL STEEL STUD WALL ASSEMBLY



"Score-It"
has multiple width
locations for
convenient
installations



TYPICAL CMU WALL ASSEMBLY



R+ EPS CAVITY WALL INSULATION

When a 3/4" air space is maintained between the R+EPS Cavity Wall insulation and the outer wall it provides both high thermal performance and optimum moisture resistance.

Technical Data

Physical Properties	Units	ASTM Test	Type I	Type II	Type IX
Compressive Resistance at 10% Strain Deformation (2" cube)	Min psi (kPa)	D 1621, C 165	10.0 (69)	15.0 (104)	25.0 (173)
Flexural Strength	Min psi (kPa)	C 203	25.0 (173)	35.0 (240)	60.0 (414)
Thermal Resistance (R-Value)* 75 ± 2° F (24 ± 1° C) 40 ± 2° F (4.4 ± 1° C)	Min R* for 1" thickness	C 177, C518	3.85 (0.67) 4.17 (0.73)	4.17 (0.73) 4.55 (0.77)	4.35 (0.77) 4.76 (0.84)
Thermal Conductivity (K-Value)* 75 ± 2° F (24 ± 1° C) 40 ± 2° F (4.4 ± 1° C)	BTU/(hr)(Sq.Ft.)(F/in.)	C 177, C518	0.260 (1.48) 0.240 (1.37)	0.240 (1.37) 0.220 (1.26)	0.230 (1.31) 0.210 (1.20)
Coefficient of Thermal Expansion	In./(In.)(F)	D 696	0.000035	0.000035	0.000035
Moisture Resistance Water Absorption by total immersion	% by volume Max	C 272	< 4.0	< 3.0	< 2.0
Water Vapor Permeability of 1" (25.4 mm) thickness max perm	Max perm/in (ng/PA*s*m²)	E 96	5.0 (287)	3.5 (201)	2.5 (143)
Oxygen Index	Min Volume %	D 2863	24.0	24.0	24.0
Dimensional Stability (Change in dimensions)	Max %	D 2126	2.0	2.0	2.0
Max. Service Temperature Long Term / Intermittent	F°		167 / 180	167 / 180	167 / 180
Density, minimum Density, nominal	Min lb/ft³ (kg/m³) lb/ft³	C 303	0.90 (15) 1.00	1.35 (22) 1.50	1.80 (29) 2.00

Additional R+ System R-Values* - Metallic-Reflective & Dead Air Space

R+ EPS Cavity-Wall Thickness.	Design Temp F°	R+ System R- Value (R+ EPS C-W + Air Space)**
0.50"	75 40	4.31 4.51
1.00"	75 40	6.48 6.89
1.50"	75 40	8.66 9.27
2.00"	75 40	10.83 11.65
2.50"	75 40	13.01 14.03
3.00"	75 40	15.18 16.41

*Additional R-Values determined using higher density EPS will produce higher R-Values.
**Requires 0.75"-3.50" dead air space and the metallic-reflective facer towards the dead air space, with all joints taped.
Custom sizes are available upon request

R+ EPS Cavity-Wall Installation Instructions

Install R+EPS C-W insulation against the interior vertical surface (remove mortar joints and snap-ties, mount flush to the wall) and secure with wall ties or an adhesive that is compatible with EPS insulation. Consult local building codes, adhesive and/or specifiers recommendations. Always keep the R+ EPS C-W above the level of the outer (buildings exterior) wall. Leave a sufficient dead air space between the R+ EPS C-W and outer vertical surface (at least 3/4 inch). Stagger all R+ EPS C-W insulation joints and butt the ends tightly. Tape all joints with a polypropylene sheathing tape for an additional air barrier.

*R means resistance to heat flow. The higher the R-value, the greater the insulating power.

Federal Trade Commission requires using the R-Value publication at 75°F temperature when calculating R-Values of all insulations. Aged R-Values of alternative products should be compared to determine long-term benefit. Some types of insulation lose their R-Value over time.

FLAMMABILITY WARNING

FMI-EPS's expanded polystyrene (EPS) products are combustible, as are all organic materials. They must not be stored or installed near open flame or any other source of ignition. In addition, when EPS installation board is installed in the interior of any occupied structure, it must be protected by proper thermal barrier, and the installer must review applicable local, state and federal building codes to determine the correct thermal barrier for the particular application.

ADJOINING MATERIALS WARNING

Expanded polystyrene(EPS) is subject to attack by liquid solvents or by most solvent based adhesives and other liquid products such as gas, diesel, etc. Care should also be taken to separate any coal tar pitch products or coal tar pitch vapors from any direct contact with EPS foam.

R+EPS made in the USA

The information in this bulletin is presented in good faith, and is believed to be accurate. All statements are made without warranty expressed or implied.



FMI-EPS, LLC

9456 N. McGuire Rd.
280 Rose Street

Post Falls, ID 83854 USA
Jerome, ID 83338 USA

Ph: 208-777-8485
Ph: 208-324-5998

888-777-8485
www.fmi-eps.com