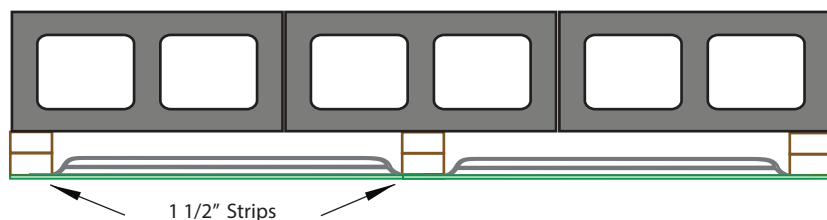




Fi-Foil's VR Plus Shield™ is a multi-layer reflective insulation intended for use on furred-out masonry walls. VR Plus Shield™ is formed by an outer layer of white kraft paper coated with polyethylene; a layer of natural kraft paper aluminium foil laminate; and a layer of aluminum foil. Upon installation the three layers open using internal expanders. The internal airspaces range between 1/4" and 1/2". The thickness of the third airspace is dependent on the thickness of the furring strips. The Hi-Perm version includes small perforations for applications not requiring a vapor retarder. VR Plus is available in both staple tab (for wood furring) and tape tab (for metal framing).



Definition of Reflective Insulation

Reflective insulation is used to reduce the transport of energy across air spaces in a building envelope and consists of one or more low emittance surfaces (0.10 or less), bounding one or more enclosed air spaces. Reflective insulation can also use other layers of materials such as paper or plastic to form enclosed air spaces as part of the system. The performance of the reflective insulation system is determined by the emittance of the material(s), the lower the better, and the size of the enclosed air spaces. The smaller the enclosed air space, the less heat will transfer by convection. Reflective insulation is recognized by ASTM, The Federal Trade Commission and Code Bodies as an accepted insulation technology. R-values can be both tested or calculated using established ASTM standards.

Product Information		
Furring/Stud	16" O.C.	24" O.C.
Width Expanded	17.5"	25.5"
Diameter	12"	10"
Lineal Footage	375'	250'
Coverage	500 sq. ft.	500 sq. ft.
Weight	29 lbs.	27 lbs.

R Values		
Heat Flow Horizontal		
	Solid	Perforated
7/8" Cavity	R 5.1	R 5.0
1-1/2" - 1-5/8" Cavity	R 7.1	R 7.0

The R Values are in accordance with ASTM C1224. The R values of VR Plus Shield increase with the thickness of the cavity or furring strips.

Test Data

Product Version	Solid	Perforated
ASTM E 96 Water Vapor Permeance	0.018	2.6
ASTM E 84-11 in accordance with ASTM E2599 Flammability		
Flame Spread Rating	< 25	< 25
Smoke Developed Rating	< 50	< 50
National Fire Protection Association Rating	Class A	Class A
ASTM D 3310 Corrosivity		None
ASTM C 1244/Section 9 Adhesive Performance		
Bleeding		None
Delamination		None
Pliability		No signs of cracking
ASTM C 1338 Mold & Mildew		Pass
ASTM C 1371 Foil Emittance		0.034

Compliance and Approvals

- Meets: ASTM C1224
 - Compliance with the following code *
 - 2015, 2012, 2009, 2006 International Building Code (IBC)
 - 2015, 2012, 2009, 2006 International Residential Code (IRC)
 - 2015, 2012, 2009, 2006 International Energy Conservation Code (IECC)
 - 2017, 2014 Florida Building Code (FBC)
 - 2017, 2014 Florida Residential Code (FRC)
 - 2017, 2014 Florida Energy Conservation Code (FECC)
 - Evaluated in accordance with *
 - ICC-ES AC 02 - Acceptance Criteria for Reflective Insulation, revised March 2017
 - State of California Bureau of Home Furnishings and Thermal Insulation License #T1390, Registry #CA-T390 FL
- * See IAMPO-ES Report #0291

Read This Before You Buy

The label shows the R-value of the insulation. R means resistance to heat flow. The higher the R-value, the greater the insulating power. Compare insulation R-values before you buy. There are other factors to consider. The amount of insulation you need depends mainly on the climate you live in. Also, your fuel savings from insulation will depend on the climate, the type and size of your house, and your fuel use patterns and family size. If you buy too much insulation, it will cost you more than what you will save on fuel. To get the marked R-value, it is essential that this insulation be installed properly.

Verified Recycled Content >20%		
VR Plus Width	16"	24"
Pre-Consumer	3.1	3.4
Post-Consumer	31.7	24.7
Total	34.7	28.1