



Standard and Hi-Perm Versions

Fi-Foil AA2 Vapor Shield™ is a reflective insulation intended for use on furred-out masonry walls. The inside layer is a minimum .00035" aluminum foil. The outer layer is 35 lb. natural kraft paper coated with polyethylene, laminated to flange boards or expanders that separate the paper from the foil creating a reflective air space. When installed on furring strips spaced 16" or 24" on center, a second reflective air space is formed. This air space is dependent upon the thickness of the furring strip selected. The Hi-Perm version includes small perforations for applications not requiring a vapor retarder.

How Reflective Insulation Works

Heat is transferred by one of three methods, which include conduction, convection and radiation. In general, any material added to a cavity increases conduction across that air space. Most insulating products on the market resist heat transfer by forming small air or gas pockets between layers of building materials such as fiberglass, recycled paper, and foam. The small spaces restrict air movement, thereby reducing heat flow by convection. However, these standard building materials are not as effective against radiant heat transfer. Reflective insulation functions by forming these dead air spaces with layers of paper, plastic, and aluminum. The high reflectivity and low emissivity of the aluminum material has the added benefit of blocking radiant energy, so heat transfer through radiation is also significantly reduced. Reflective insulation provides resistance to heat gain in summer conditions and heat loss in winter conditions. This lowers both cooling and heating costs, reducing energy expenditures throughout the year.



AA2 Vapor Shield™ – Reflective Insulation

PRODUCT INFORMATION

Furring/Stud Spacing	16" O.C.	24" O.C.
Width Expanded	17.5"	25.5"
Diameter	10"	8"
Lineal Footage	375'	250'
Coverage	500 sq. ft.	500 sq. ft.
Weight	21 lbs.	19 lbs.

R-VALUES

	Heat Flow Horizontal Vapor Shield	Vapor Shield Hi-Perm
3/4" Cavity	R-4.2	R-4.1
7/8" Cavity	R-4.7	R-4.6
1-1/2" Cavity	R-5.2	R-5.1

ASTM C-236 R-Value Test. The R-values of AA-2 Vapor Shield increase with the thickness of furring strips. With the use of Vapor Shield, the thickness of furring strips are slightly increased because it is applied to the surface of the strips and overlaps. Therefore all measurements are considered nominal.

Test Data

ASTM E-96 - Water Vapor Permeance	0.802
ASTM E-96 - Water Vapor Permeance Hi-Perm	8.67
ASTM E-84 - Flammability	
Flame Spread Rating	45
Smoke Developed Rating	10
Interior Wall & Ceiling Finish Classification	Class B
ASTM D-3310 - Adhesive Performance	
Corrosivity	None
Bleeding	None
Delamination	None
Pliability	No signs of cracking or delamination
ASTM C-1338 & MIL-STD 810D - Mold & Mildew	Pass
ASTM C-1371 - Foil Emittance	0.034

READ THIS BEFORE YOU BUY

The label shows the R-value of this 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 upon the climate, the type and size of your house, the amount of insulation already in 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.

Compliance and Approvals



REPORT 01-1127.10

Meets
ASTM C-1224-97



Legacy Report
#2133A



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