



Specification Sheet



Hy-Fi™ Reflective Insulation

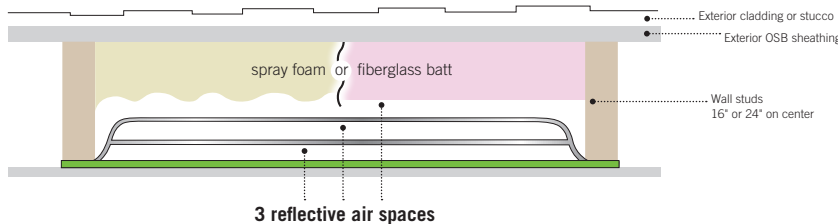
A multi-layer reflective insulation intended for use in wall cavities.

Standard & Hi-Perm Options

Hy-Fi has three layers: an outer layer of white kraft paper coated with polyethylene, an internal layer of aluminum foil, and a layer of kraft paper laminated to aluminum foil. When installed, the layers open using internal expanders. Standard Hy-Fi is a vapor retarder, and Hi-Perm Hy-Fi is perforated for applications not requiring a vapor retarder. (Refer to local building codes and Fi-Foil's selection guide to determine which version is appropriate for the zone and application). Tape Tab and Staple Tab versions are also available.

How Reflective Insulation Works

Heat is transferred by three methods: Convection, Conduction and Radiation. Enclosed air spaces within a building assembly have resistance to heat transfer and have R-values (per *ASHRAE Fundamentals Handbook*). Mass insulating materials such as fiberglass, cellulose, cotton or foam enclose small air or gas molecules — their primary function is to reduce convection within the product. Multi-layer reflective insulation uses layers of materials including paper, aluminum foil, and metalized aluminum substrates to enclose air spaces to reduce convection. The low emittance of reflective layers offers the distinct advantage of significantly reducing radiant heat transfer.



Test Data

ASTM E-96 — Water Vapor Permeance	0.20
ASTM E-96 — Water Vapor Permeance Hi-Perm	5.42 perms
ASTM E-84 — Flammability	
Flame Spread Rating	20
Smoke Development Rating	10
Interior Wall & Ceiling Finish Classification	Class A
ASTM D-3310 — Corrosivity	None
ASTM C-1224-99 (9.2.1 & 9.2.2) Adhesive Performance	
Bleeding	None
Delamination	None
Pliability	No signs of cracking or delamination
ASTM C-1338 Mold & Mildew	Pass
ASTM C-1371 Foil Emittance	0.034

Product Information

Furring/Stud Spacing	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

2" x 4" Frame Wall

Hy-Fi™ with 2" R-6.75 Spray Foam **R-21**

2" x 6" Frame Wall

Hy-Fi™ with 3.5" R-13 Fiberglass **R-21**

See FiFoil.com for additional system R-values.

Recycled Content, R&D Services, % of Total

Product	Pre-Consumer	Post-Consumer	Total
16" Hy-Fi	2.9%	32.5%	35.4%
24" Hy-Fi	2.7%	25.2%	27.9%

Compliance Information

Meets or exceeds ASTM C1224, the Standard Specification of Reflective Insulation.

Meets 2009 and 2006 International Building, Residential and Energy Codes.

Meets 2010 and 2007 Florida Building, Residential and Energy Conversation Codes.

IAPMO Evaluation Report number 0266, Sections 3 & 4.

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.

