Insulating Masonry Walls with Reflective Insulation

Why Fi-Foil Reflective Insulation?

- Time Tested. Reflective Insulation has been used for over 50 years on masonry walls in Single Family, Multi-Family homes and all types of Commercial buildings
- Lowest cost per R-Value of all masonry wall insulation
- Gain R-4.1 to R-7.1, third-party tested to ASTM Standards
- Easily combined with other mass insulation to achieve a higher performance wall system
- Perforated options for Hot Humid and Mixed Climate Zones
- Paperless, perforated option for Mold & Mildew Sensitive projects; tests prove Zero Mold Growth
- Staple Tab versions fo r wood furring; Tape Tab version for metal framing
- Manufactured in Central Florida
- Qualifies for various Green Certification credits, such as LEED
- Complies with ENERGY STAR version 3 Requirements for mass wall insulation
- Meets National & Florida Building & Energy Code requirements

VISTA MAR/Pinnacle Housing Group, Miami, FL

U.S. Citizens & Immigration Services, Miami, FL

USGBC LEED Platinum & Energy Star Home
Josh Wayne Construction, Sarasota, FL

MEMBER FGBC FLORIDA GREEN BUILDING COALITION

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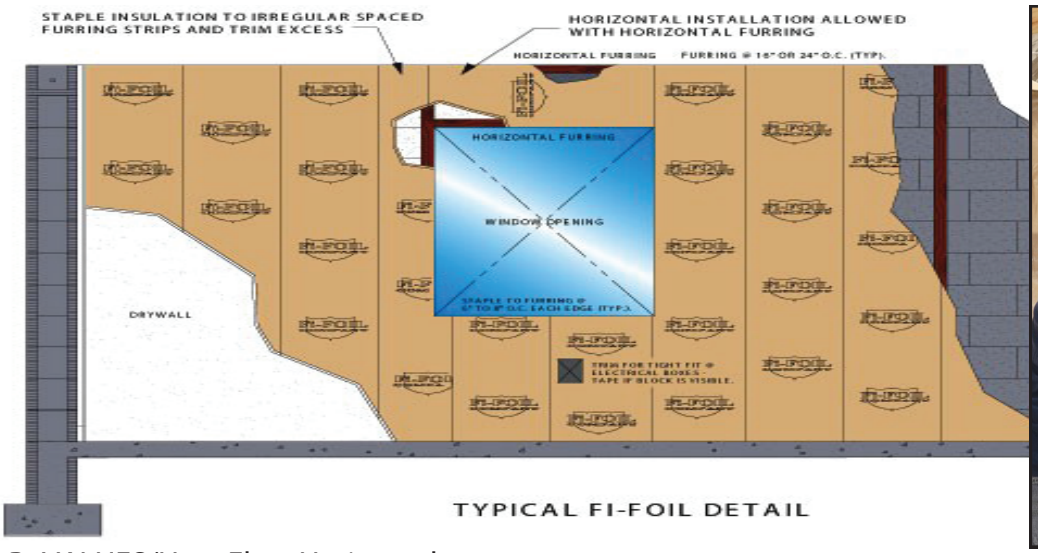

TYPICAL FI-FOIL DETAIL

R -VALUES/Heat Flow Horizontal

	3/4" Furring	7/8" Furring	1-1/2" or 1 -5/8" furring
AA2 Shield	R -4.2 R -4.1 HP*	R -4.7 R -4.6 HP*	R -5.2 R -5.1 HP*
M Shield	R -4.2 HP*	R -4.5 HP*	R -5.1 HP*
VR Plus	N/A	N/A	R -7.1 R -7.0 HP*

*HP = perforated version, allows vapor transmission.

System Values

Wall 1: Base Case. Block Wall with No Insulation
Wall 2: 1" x 2" Furring with Two Layer Reflective Insulation
Wall 3: 2" x 2" Furring with Three Layer Reflective Insulation

Component	R [b]	Wall -1	Wall -2	Wall -3
Exterior air film	0.17	x	x	x
¼-inch stucco	0.05	x	x	x
8-inch block	1.04	x	x	x
Single furring	0.915	x	x	-
Double furring	1.83	-	x	-
Two reflective layers	4.1	-	x	-
Three reflective layers	7.0	-	-	x
½-inch gypsum	0.45	x	x	x
Internal air film	0.68	x	x	x

Air-To-Air R	16 in. OC	3.24	5.96	8.42
	24 in. OC	3.23	6.12	8.72
U-Values	16 in. OC	0.31	0.17	0.12
	24 in. OC	0.31	0.16	0.11

[a] Heat flow across framing is included
[b] ft2 •h•°F/Btu

The air -to-air thermal resistance for each of the wall structures described above were determined using a parallel -path calculation with 0.906 for the fraction cavity and 0.094 for the fraction framing in the case of 16 -in. OC framing and 0.9375 for the cavity fraction in the case of 24 -in. OC framing. Thermal resistances for the components in each structure were taken from the ASHRAE Handbook of Fundamentals. The apparent thermal conductivity for the furring lumber was taken to be 0.82 Btu•in./ft2 •h•°F.

For Specification and Installation sheets, please visit our website - www.fifoil.com
For Technical Support or Customer Service - call 800.448.3401 or 863.965.1846