



SPECIFICATION SHEET

**Unique Design
Adds R-Value**



Fi-Foil's Silver Shield™ is an insulating product composed of multiple layers of low emittance (low-e) materials designed to significantly reduce radiant heat transfer. The inside layer is a metalized polymer. The outside layer is reinforced aluminum foil kraft paper bonded with a fire retardant adhesive. The layers expand when installed to form a reflective air space to provide enhanced thermal performance and protect the low emittance surface from the performance reducing effects of dust accumulation. Since metalized and foil-based aluminum products have a near zero water vapor permeance, Silver Shield™ is perforated to allow water vapor transmission. Product applications include roofs and walls.

Applications:

Attics: Silver Shield™ can be installed in roof cavities for attic radiant barrier applications. In addition to the reflective properties of the product, the enclosed air space provides an R-value which increases the thermal performance of the attic insulation system. This product application reduces ceiling heat transfer, improves the performance of HVAC systems and ducts, as well as improves comfort levels in both winter and summer conditions.

Walls facing Attic Spaces: Vertical knee walls in bonus rooms present design challenges for maintaining thermal performance over time. Silver Shield™ assists the mass insulation by maintaining the alignment with the air barrier or wall board. In essence, Silver Shield™ holds mass insulation against the drywall to prevent attic-air circulation. In addition, Silver Shield™ reduces the respective heat gain and loss in summer and winter conditions by providing a low-e surface(s) facing the attic adding to the R-value of the insulation system

External Walls: Silver Shield™ can be used in a wall cavity to reduce heat gain and loss through radiation and convection. Thermal Performance varies with the placement of the product in the wall assembly

Radiant Barrier System (RBS) is a building construction consisting of a low emittance (0.1 or less) surface bounded by an open air space. An RBS is used for the primary purpose of limiting heat transfer by radiation.

Reflective Insulation is thermal insulation consisting of one or more low emittance surfaces, bounding one of more enclosed air spaces. Reflective Insulations reduce radiant and convective heat transfer.

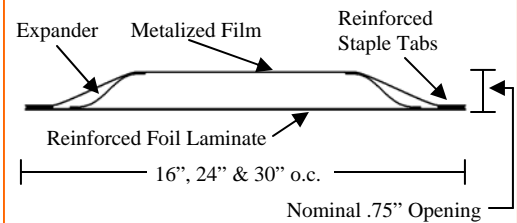
Test Data

ASTM E-96 - Water Vapor Permeance Hi-Perm.....	5.00 perms
ASTM E-84 - Flammability	
Flame Spread Rating.....	0
Smoke Development Rating.....	0
Interior Wall & Ceiling Finish Classification.....	Class A
ASTM C-1371 - Thermal Emittance	
1st Layer MET PVC Metal Side.....	0.04
2nd Layer Foil Laminate.....	0.03
ASTM STP 1116 - R-values for a Reflective Air Space	
Heat Flow Up at 45° (Enclosed 3/4" air space).....	R-2.0
Heat Flow Down at 45° (Enclosed 3/4" air space).....	R-3.3
Heat Flow Horizontal (single low-e surface).....	R-1.7
Heat Flow Horizontal (multiple low-e surfaces with an enclosed 3/4" air space).....	R-4.6
ASTM D-3310 - Corrosivity.....	Pass
ASTM C-1224-99 (9.2.1 & 9.2.2) Adhesive Performance	
Bleeding.....	None
Delamination.....	None
Pliability.....	No signs of cracking or delamination
ASTM D-2261 - Tongue Tear Test.....	MD 1.77.....CD 2.32
ASTM C-1338 - Mold & Mildew.....	Pass
ASTM E-2129.....	Contributes to Building Sustainability



Silver Shield™

Technical Drawing



Product Information

Furring/Stud Spacing (o.c.)	16"	24"	30"
Width Expanded	17.5"	25.5"	31.5"
Diameter	8"	10"	6"
Lineal Footage	375'	250'	100'
Coverage (sq.ft.)	500	500	250
Weight (lbs.)	26	22	10

Compliance and Approvals

Meets: ASTM C-1313
ASTM C-1224

State of California Bureau
of Home Furnishings and
Thermal Insulation
License #TD1390
Registry #CA-T390

MEMBER



INTERNATIONAL
CODE COUNCIL®

Legacy Report
#2133A



PO Box 800
Auburndale, FL 33823
Phone: (800) 448-3401
Fax: (863) 967-0137
www.fifoil.com