



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, kneewalls, and gables.

Applications:

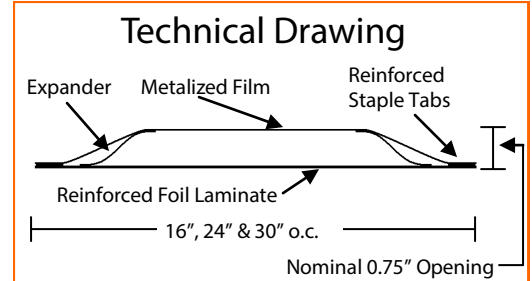
Attics: Silver Shield™ can be installed in roof cavities for attic radiant barrier applications. In addition to the reflective properties of the product, the enclosed air space provides an R-value which increases the thermal performance of the attic insulation system. This product application reduces 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 or more enclosed air spaces. Reflective Insulations reduce radiant and convective heat transfer



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
- Compliance with the following code *
 - 2012, 2009, and 2006 International Building Code (IBC)
 - 2012, 2009, and 2006 International Residential Code (IRC)
 - 2012, 2009, and 2006 International Energy Conservation Code (IECC)
 - 2010 and 2007 Florida Building Code (FBC)
 - 2010 and 2007 Florida Residential Code (FRC)
 - 2010 and 2007 Florida Energy Conservation Code (FECC)
- Evaluated in accordance with *
 - ICC-ES AC 220 - Acceptance Criteria for Sheet Radiant Barriers, approved September 2010
- State of California Bureau of Home Furnishings and Thermal Insulation License #T1390, Registry #CA -T390 FL
- * See IAMPO-ES Report #0291

High Recycled Content

Certified by a third party testing and inspection service (R&D Services, Inc.), Reflective Insulation has more than 22 percent recycled content, with at least 21 percent being post-consumer content.

- 16" Silver Shield More than 22% Recycled Content
- 24" Silver Shield More than 22% Recycled Content

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/Section 9 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