

RADIANT BARRIER

REFLECTIX® SUBMITTAL SHEET



Improves efficiency of
attic-mounted HVAC ducts

Reduces attic surface
temperatures

Decreases air conditioning
run time by up to 10%

WAREHOUSE LOCATIONS:

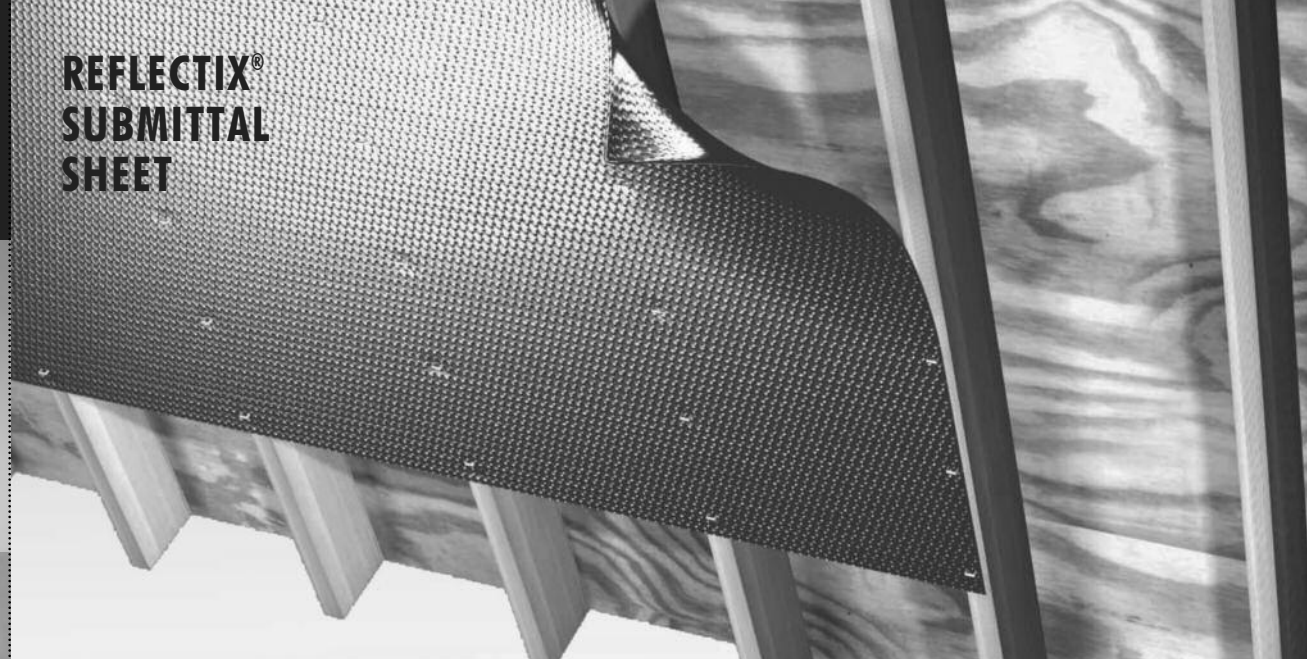
Markleville, IN

Phoenix, AZ

Greenville, SC

Needham, MA

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Note: This is an example of 1 of 3 installation methods.

ATTIC RADIANT BARRIER

Reflectix® products are an excellent, energy-efficient choice for upgrading an attic system. When installed properly, a reduction of up to 10% in the home's air conditioning usage can result. The products are clean, lightweight and easy to install. Additionally, attic-mounted HVAC ducts benefit from the reduction of attic surface temperatures.

Note: Attic Radiant Barriers provide benefit on hot sunny days. For this reason, they are recommended for installation in the Southern Zone of the USA (due to the amount of AC usage). However, they will provide reduced heat gain into the home wherever they are installed. If you need to verify your location, use our Zip Code Zone Locator at www.reflectixinc.com/zip-code-zone-locator/ or contact our Customer Service Group at (800) 879-3645.

PRODUCT DESCRIPTION

Two products are available for this application: The Reflectix® Radiant Barrier (Reflective/Woven Fabric) product consists of two sheets of highly reflective (94%+ reflectivity) film laminated to a woven polyethylene fabric (for staple strength). The Reflectix® Double Reflective Insulation (Reflective/Bubble) can also be installed as a Radiant Barrier. This product consists of two layers of highly reflective film (94%+ reflectivity) that are bonded to two tough layers of polyethylene. Two inner layers of insulating bubbles and a center layer of polyethylene provide this alternate product with high strength and reliability.

BENEFITS

- Radiant barrier
- Reflects 94%+ of radiant energy
- Does not require protective clothing or respirators to install
- Convenient roll sizes
- Resists growth of fungi, mold and mildew
- Absolutely will not cause shingle damage
- Not affected by moisture or humidity
- Class A / Class 1 Fire Rating
- ISO 9001:2008 certified manufacturing location

REFLECTIX RADIANT BARRIER PART NUMBERS AND STOCK SIZES

Double Reflective Insulation (Reflective/Bubble)

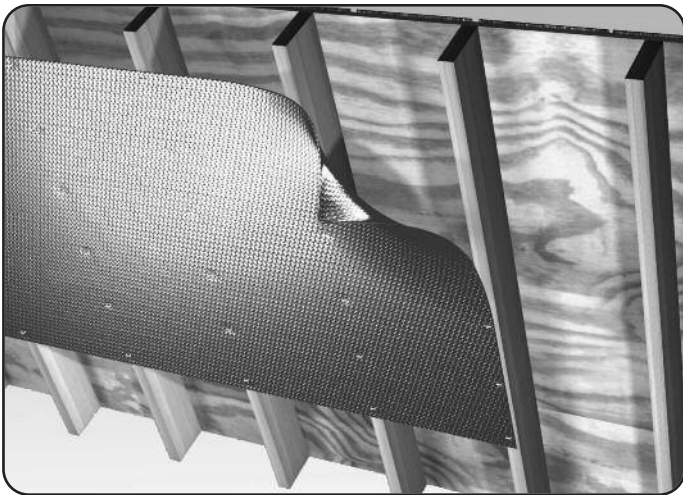
- | | | |
|-------------------------|--------------------------|--------------------------|
| • HVST16050 (16" x 50') | • HVST16100 (16" x 100') | • HVST16125 (16" x 125') |
| • HVST24050 (24" x 50') | • HVST24100 (24" x 100') | • HVST24125 (24" x 125') |
| • HVST48050 (48" x 50') | • HVST48100 (48" x 100') | • HVST48125 (48" x 125') |

Radiant Barrier (Reflective/Woven Fabric)

- RB4812550 (48" x 125')

APPLICATIONS

These Reflectix® products are installed in attic systems to provide a dramatic reduction in radiant energy transfer to the interior of the structure.



Note: This is an example of 1 of 3 installation methods.

Double Reflective Technical Data:

Temperature Range:	-60° to 180° F
Nominal Thickness:	5/16 inch (.312)
Weight:	0.771 oz./sq. ft.
Flame Spread Index (ASTM E 84):	Less than 25
Smoke Developed Index (ASTM E 84):	Less than 50
Mounting Method (ASTM E 2599)	
Fire Rating:	Class A/Class 1
Linear Shrinkage:	None
Reflectance (IR):	94%+
Water Vapor Transmission (ASTM E 96):	0.02
Puncture Resistance:	60 lb./in.
Mold and Mildew:	No Growth
Emittance:	Less than 0.06
Tensile Strength:	3.7 N/mm
Pliability:	No Cracking
Hot Surface Performance:	Passed (250° F)

Note: Not for use in direct contact on surface temperatures that are 180° F or greater.

DOUBLE REFLECTIVE INSULATION (Reflective/Bubble) INSTALLED AS A RADIANT BARRIER TESTING & CERTIFICATIONS

- Thermal Performance of Wall Systems ASTM C1363
- Thermal Performance of HVAC Duct System ASTM C335
- Thermal Performance of Crawl Space ASTM C1363
- Hot Surface Performance ASTM C411
- Heat Transfer (Heat Flow Up, Down, Horizontal) ASTM C1363
- Thermal Performance of Reflectix® and Fiberglass in Walls ASTM C1363
- Heat Transfer of Air-Handling Ducts with Reflectix®
- Flame Spread and Smoke Density ASTM E84
- Mounting Method ASTM E2599
- Fungus Resistance Mil-Std 810B Method 508
- Pliability Test ASTM C1224
- Sound Absorption Test ASTM C423 and ASTM E795
- Sound Transmission Loss ASTM E90 and ASTM E413
- Water Vapor Transmission ASTM E96
- Tensile Strength ASTM D751

- Emittance Testing ASTM C1371
- Thermal Performance of Water Heater Jackets
- Intertek: Surface Burning Characteristics of Building Materials ASTM E84 (Taped Joint Detail) Test Report # 3166908SAT-012
- Intertek: Surface Burning Characteristics of Building Materials ASTM E84 (Unslit) Test Report # 3166908SAT-011
- R&D Services: Resistance to the Growth of Fungi ASTM C1338 Test Report # RD072713FR
- State of California
- State of California Licensed Insulation Manufacturer
- State of Minnesota: Filed with Minnesota Insulation Standards Program
- State of Wisconsin: Wisconsin Material Approval, Safety and Buildings Division Approval # 920088-1
- R&D Services Emittance Testing
- R&D Services: Physical Properties Sheet Width, Length, Pliability, Water Vapor Permanence and Aged Water Vapor Permanence
- R&D Services: Water Vapor Transmission Test ASTM E96 (Dessicant Method)

Radiant Barrier Technical Data:

Roll Dimensions	48" x 125'
Flame Spread (ASTM E 84):	Less than 25
Smoke Development (ASTM E 84):	Less than 50
Mounting Method (ASTM E 2599)	
Emittance:	Less than 0.06
Reflectivity of Infrared Energy: (ASTM C 1371)	94%+
Permeance:	9.6
Corrosion:	No Corrosion
Adhesive Bleeding:	None
Pliability:	No Cracking or Delamination
Fungi Resistance:	Pass

RADIANT BARRIER (Reflective/Woven Fabric) TESTING AND CERTIFICATIONS

- Surface Emittance ASTM C1371
- Water Vapor Transmission ASTM E96
- Permeance ASTM E96
- Flame Spread and Smoke Density ASTM E84
- Corrosivity ASTM D3310
- Tear Resistance ASTM D2261
- Bleeding and Delamination C1313
- Pliability C1313
- Conditioning Procedure TAPPI T512

MANUFACTURER'S SUGGESTED INSTALLATION INSTRUCTIONS

NOTE: Installation instructions and illustrated drawings are recommendations only, while proper local construction methods are the responsibility of the installer.

DOUBLE REFLECTIVE INSULATION (REFLECTIVE/BUBBLE)

INSTALLATION INSTRUCTIONS: (THERE ARE 3 OPTIONS)

1. UNDERSIDE OF RAFTER METHOD (DEPICTED IN ILLUSTRATION ABOVE)

- Check the attic area and make any needed repairs before installing Reflectix®.
- Unroll the Reflectix® as you work and cut it to suitable lengths (8' to 12') with scissors or utility knife.
- If a helper is available, rolling out longer lengths of product with one person stapling and the other holding the end of the product makes for a quicker installation.
- Allow for proper ventilation. See note below on ventilation.
- Install product perpendicular to the rafters with a 2" overlap on the seams (no taping required). Staple the product to the rafters at 2" to 3" intervals.
- Leave a 2" to 3" gap on each side of the roof peak and a gap at the lower edge of the roof line (within 18" OK).
- Staple to the face of the studs on gables and insure at least a 1" gap around all vents.

2. STAPLE TO THE DECK METHOD - SOUTHERN ZONE OF THE USA ONLY

For the Regional Recommendation for the Staple to the Deck Method, please verify your location with the "Zip Code Zone Locator" available on our website at www.reflectixinc.com/zip-code-zone-locator/ or contact our Customer Service Group at (800) 879-3645.

- It is easiest to install either 16" or 24" wide product (depending on rafter spacing).
- Begin at the top of the cavity. Run product flush to the decking, parallel to the rafter.
- Staple sheet directly to the deck (nails poking through sheet from above will not interfere with performance).
- Do not block any venting (cut around).
- No need to cover rafters (no loop around).

3. TRUSS CAVITY OR SIDE OF RAFTER METHOD

- Utilize either 16" or 24" Double Reflective Insulation (Reflective/Bubble) product (depending on truss/rafter spacing).
- Product will be installed parallel to the truss/rafter direction.
- Begin at the top of the cavity.
- Staple the product to the side of the top chord of the truss (the structural 2"x 4" (or 2"x 6") that is attached to the roof decking) or the side of the rafter.
- Continue down length of truss/rafter stapling at 2" to 3" intervals - Repeat on opposite truss/rafter.
- Allow for proper ventilation. See note below on ventilation.
- A minimum of a 1/4" continuous air gap should be present between the product and the roof decking - Do not staple the product directly to the deck - This product is not perforated and could potentially condensate.
- Do not block any venting (cut around).

RADIANT BARRIER (REFLECTIVE/WOVEN FABRIC)

INSTALLATION INSTRUCTIONS: (THERE ARE 2 OPTIONS)

1. UNDERSIDE OF RAFTER METHOD (DEPICTED IN ILLUSTRATION ABOVE)

- Check the attic area and make any needed repairs before installing Reflectix®.
- Unroll the Reflectix® as you work and cut it to suitable lengths (8' to 12') with scissors or utility knife.
- If a helper is available, rolling out longer lengths of product with one person stapling and the other holding the end of the product makes for a quicker installation.
- Allow for proper ventilation. See note below on ventilation.
- Install product perpendicular to the rafters with a 2" overlap on the seams (no taping required). Staple the product to the rafters at 2" to 3" intervals.
- Leave a 2" to 3" gap on each side of the roof peak and a gap at the lower edge of the roof line (within 18" OK).
- Staple to the face of the studs on gables and insure at least a 1" gap around all vents.

2. STAPLE TO THE DECK METHOD - SOUTHERN ZONE OF THE USA ONLY

For the Regional Recommendation for the Staple to the Deck Method, please verify your location with the "Zip Code Zone Locator" available on our website at www.reflectixinc.com/zip-code-zone-locator/ or contact our Customer Service Group at (800) 879-3645.

- Cut the entire roll of product into 16" or 24" lengths with a miter saw (depending on rafter spacing).
- Begin at the top of the cavity. Run product flush to the decking, parallel to the rafter.
- Staple sheet directly to the deck (nails poking through sheet from above will not interfere with performance).
- Do not block any venting (cut around).
- No need to cover rafters (no loop around).

Ventilation: Good ventilation in your attic increases your comfort and helps the materials of your house last longer. Be sure not to block ventilation paths when you install Reflectix®.

