



AIA ONLINE COURSES AND IN-PERSON SEMINARS

AIA
Continuing
Education
Provider

Online and mobile-friendly, Fi-Foil's courses educate and inform through an interesting mix of slideshows, audio and video. The platform design lets users access the content they need and exercise control over their learning process.

Courses are self-paced and geared toward busy professionals. Users can pause the class, then come back and pick up exactly where they left off. Users can also opt to download the course, take the test later, as well as retake the test immediately.

When you complete a class, Fi-Foil reports all credits to the AIA and makes your certificate available immediately.

We also record your account history to track all of the courses you've taken and when. The process lets you easily see what you've accomplished and prevents repetition or duplication of effort.

Browse the current courses offered, schedule an In-Person Seminar for your team or register for the online course to begin earning AIA Continuing Education credits today at [Fifoil.com/university](https://fifoil.com/university).

To learn more about AIA-approved CE courses or in-person seminars in your area, contact Jan Bradford, National Architectural Program Director at 863-661-9718 or jbradford@fifoil.com.



612 BRIDGERS AVENUE WEST, PO BOX 800, AUBURNDALE, FL 33823

1.800.448.3401 • [FI-FOIL.COM](https://fifoil.com)

© 2022 Fi-Foil Company, Inc. All Rights Reserved.



High Performance Radiant Insulation Systems

SERVICE | INTEGRITY | INNOVATION

SINCE 1983

Philosophy & Approach

Fi-Foil has long been committed to advancing green building technology through high-performance insulation innovations. Our reflective insulation and radiant barriers provide energy efficiency and superior thermal performance for **residential, commercial** and **industrial** buildings.

Fi-Foil opened in 1983 with a mission to manufacture and distribute high-quality radiant insulation and barriers to advance the energy efficiency of buildings and improve indoor comfort year-round. Over 39 years, this mission has evolved to include a commitment to sustainable design that has driven improvements for the industry and education that has helped architects, builders and contractors understand the benefits and value of reflective technologies. Today, the mission remains stronger than ever, with a dedication to ongoing innovation, exceptional customer service and integrity at the center of all we do.

As a leading manufacturer of air and specialty barriers and reflective insulation, Fi-Foil has been specified by production and custom builders and preferred by local and national insulation contractors & distributors, including TopBuild, TruTeam, Service Partners, Installed Building Products (IBP), Pinnacle Housing Corporation, Kolter Properties, Moss Construction, Convenience Products, PrimeSource Building Products, The Home Depot, Lowe's, D.R. Horton, Lennar, Pulte Homes, Neal Communities, along with energy consultants including Two Trails and SkyeTec and leading architects designing for sustainability and resilience.

Since 2017, Fi-Foil systems have been specified in the National Association of Home Builders' (NAHB) showcase homes – The New American Home (TNAH) and the New American Remodel (TNAR).

Why Fi-Foil?

Fi-Foil's innovative radiant insulation products improve building efficiency and indoor comfort. We dedicate resources to developing new solutions for improved energy sustainability. Our products meet or exceed the standards of ASTM International with compliance verified by reputable third parties. Products are designed to meet local, state and international building codes and can help builders qualify for Energy Star and other Department of Energy certifications.



Fi-Foil Accolades

Fi-Foil has been celebrated for its green building practices and sustainable innovations, including:

- Receiving the Professional Remodeler Top 100 Products designation for the HY-Fi® hybrid frame wall system and M-Shield paperless masonry wall insulation in 2017.
- Earning Product of the Year for our groundbreaking advancement in gas-filled panel technology called GFP Insulation in 2011 at the Global Insulation Conference in Toronto.
- Landing a Featured Insulation Product spot on The History Channel and receiving the Cool Product Award from the Pacific Coast Builders Conference for our Silver Shield® multi-layer attic radiant barrier in 2006.
- Our products help builders reach their target Home Energy Rating System (HERS) Index and qualify for green building certification programs. These include the Florida Green Building Coalition (FGBC), the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED), Department of Energy (DOE) Zero Energy Ready Certification, Earth Craft and Green Globes.
- We also proudly affiliate with other industry leaders, including the Reflective Insulation Manufacturers Association International (RIMA-I), the American Society for Testing and Materials (ASTM) International, the Insulation Contractors Association of America (ICAA), the National Insulation Contractors' Exchange (NICE), the International Association of Plumbing and Mechanical Officials (IAPMO), the Residential Energy Services Network (RESNET), The National Association of Home Builders (NAHB) and Leading Suppliers Council (LSC), The Building Officials Association of Florida (BOAF) and the Masonry Association of Florida (MAF).

Product Categories

- **Reflective Insulation**
Combines a radiant barrier's effectiveness with traditional insulation's thermal performance when used with enclosed air spaces in wall or ceiling applications.
- **Attic Radiant Barriers**
Stops up to 97% of radiant heat transfer to reduce energy expenditures and costs year-round.
- **Air Barriers**
Restricts air and water vapor movement between conditioned, unconditioned or partially conditioned space to provide greater efficiency, resilience and more comfortable living or working environments.
- **SCIF Barriers**
Blocks radio frequency (RF) and electromagnetic frequency (EF) interference to protect sensitive information.
- **Class A Facing**
A cost-effective way to meet code requirements for flammability.
- **Metal Building Insulation**
Easy-to-install system specifically for metal construction or retrofits; adds up to R-16 without additional insulation.
- **Accessories**
Clip & Pin fastener systems, tapes and garage door kits to support the efficiency of Fi-Foil's high-performance insulation systems.





AA2 Vapor Shield™ Reflective Insulation for Masonry Walls



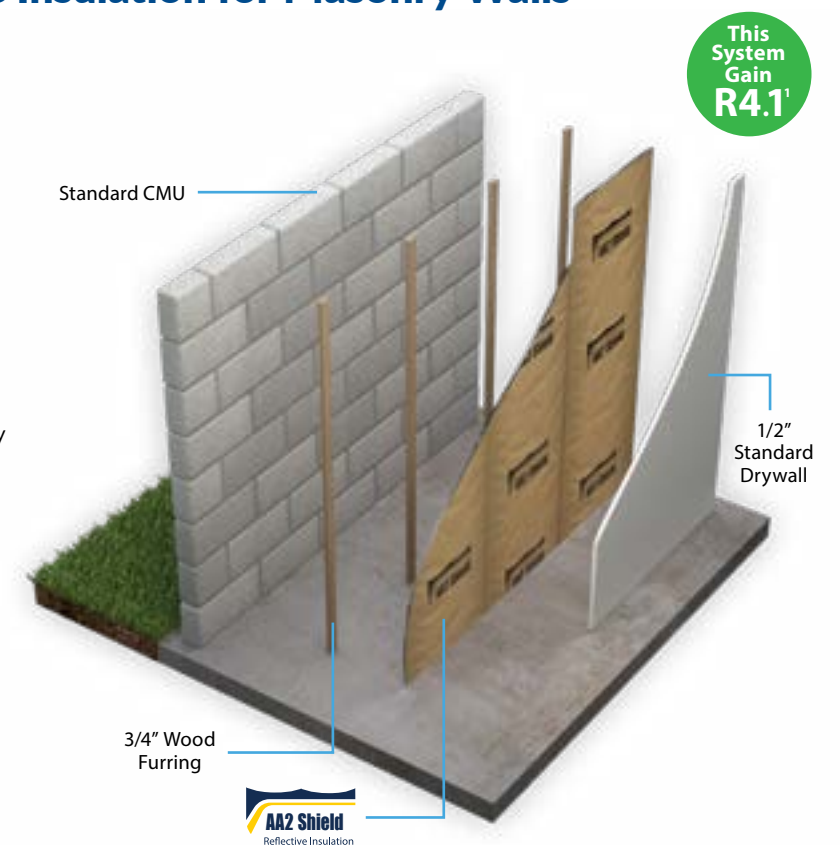
AA2 Vapor Shield™ is a radiant reflective insulation solution designed for masonry walls with wood furring or metal framing and can be used alone or in combination with other mass insulation. Gain cost-effective thermal performance by enhancing a minimum 3/4" enclosed cavity air space, providing R-value and potential to maximize livable area. 10-year transferable warranty. Perforated version recommended in hot-humid climates.

FEATURES:

- Two (2) Layer Reflective Insulation
- Outer Layer of Natural Kraft Paper
- Inner Layer of Premium Grade Aluminum Foil
- Fi-Foil Expander Technology Separates layers to create two (2) reflective air spaces

BENEFITS:

- Adds R4.1 - R5.1¹
- Third-Party Verified Compliance
- Lightweight 500 SF Rolls Install Faster
- 1 Roll = 16 Sheets of Foam Board²



HY-Fi® Hybrid Insulation System for Frame Walls and Ceilings



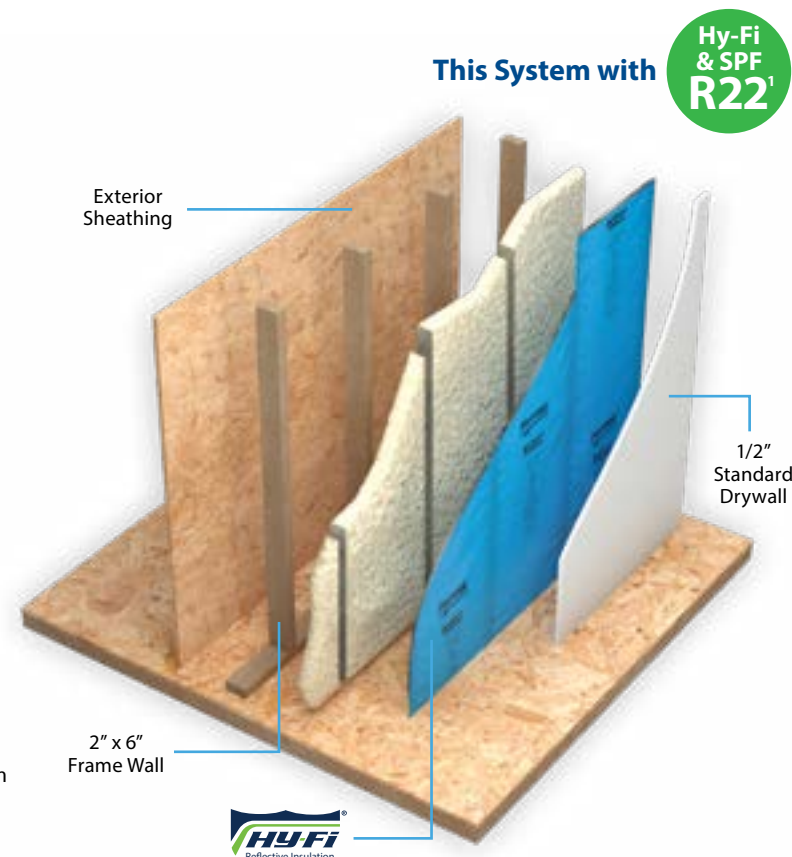
HY-Fi® is a multi-layered radiant reflective hybrid insulation solution for frame walls and can be combined with any mass insulation for improved thermal performance, requires a minimum 1-1/2" cavity air space to provide a minimum R7; commonly used as a wall or ceiling system with spray foam to minimize excess waste and gain flexibility for last-minute wiring changes without sacrificing performance. 10-year transferable warranty. Perforated version recommended in hot-humid climates.

FEATURES:

- Multi-Layer Hybrid Insulation System
- Outer Layer of Kraft Paper Coated with Polyethylene
- Inner Layer of Premium Grade Aluminum Foil
- Plus Additional Layer of Foil Reinforced with Fiberglass Scrim

BENEFITS:

- Adds R7.0+ with minimum 1-1/2" enclosed air space¹
- Turbocharges ocSPF Performance by 10%³
- Saves Labor with Less Waste Removal
- Allows for Last Minute Changes to Wiring/Plumbing



M-Shield® Reflective Insulation for Masonry Walls



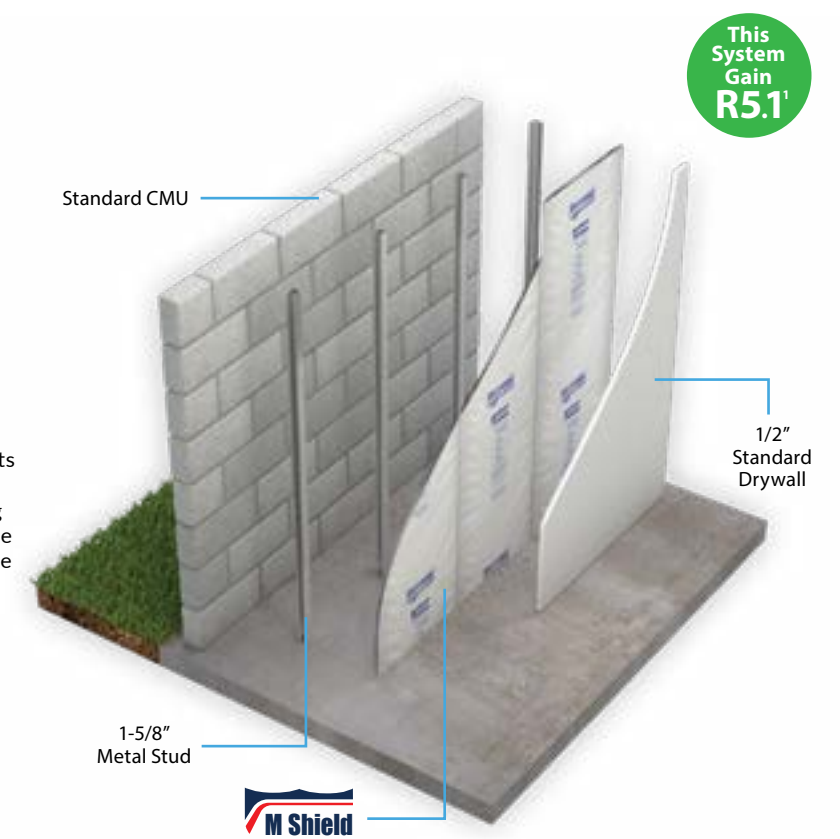
M-Shield® is a paperless radiant reflective insulation solution designed for masonry walls with wood furring or metal framing and can be used alone or in combination with other mass insulation. Ideal for mold-sensitive projects to reduce the risk of moisture accumulation and improve indoor air quality. Gain thermal performance by enhancing a minimum of 3/4" enclosed cavity space, providing R-value and potential to maximize livable area. 10-year transferable warranty. Ideal for use in hot-humid climates.

FEATURES:

- Paperless Reflective Insulation for Mold Sensitive Projects
- Two (2) Layers of Reflective Insulation
- Outer Layer of Synthetic Polymer Facing
- Allows Vapor Transmission for Zero Mold growth

BENEFITS:

- Adds R4.1 - R5.1¹
- Improves Indoor Air Quality
- Third-Party Verified Code Compliance
- 1 Roll = 16 Sheets of Foam Board²



VR Plus Shield™ Reflective Insulation Multi-layer for Masonry Walls



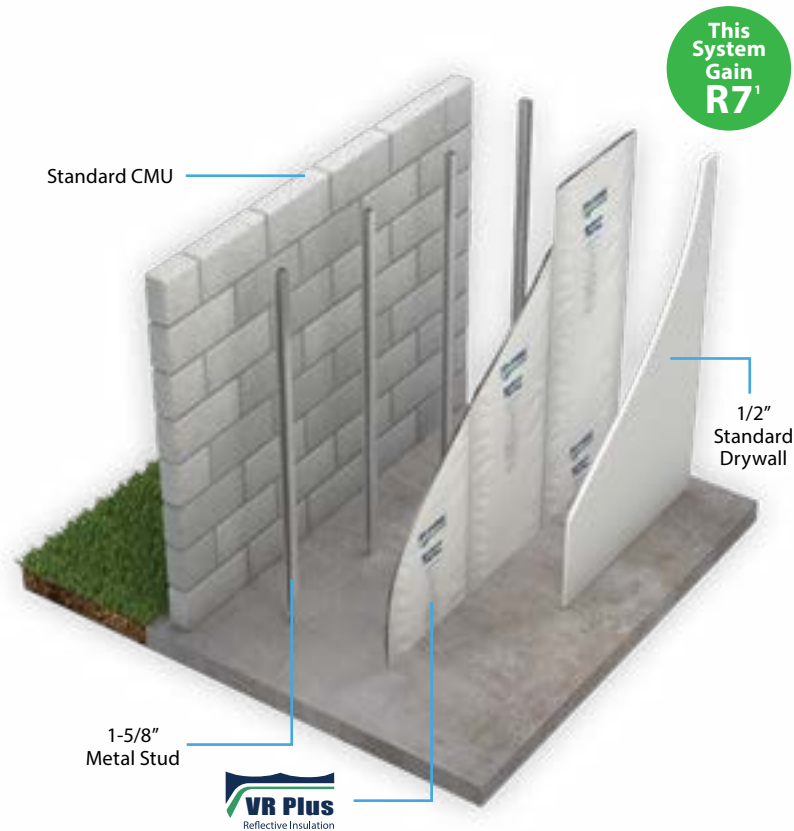
VR Plus Shield™ is a multi-layered radiant reflective insulation solution for masonry walls with wood furring or metal framing and can be used alone or in combination with other mass insulation. Gain cost-effective thermal performance utilizing multiple Low-e layers to enhance enclosed cavity air space, requires a minimum 1-1/2" air space, provides significant R-value and potential to maximize livable area. 10-year transferable warranty. Perforated version recommended in hot-humid climates.

FEATURES:

- Three (3) Layer Reflective Insulation
- Outer Layer of Natural Kraft Paper
- Inner Layers of Premium Grade Aluminum Foil
- Fi-Foil Expander Technology Separates layers to create three (3) reflective air spaces

BENEFITS:

- Adds R7.0¹
- Third-Party Verified Compliance
- Lightweight 500 SF Rolls Install Faster
- 1 Roll = 16 Sheets of Foam Board²



Flex Foam Reflective Insulation



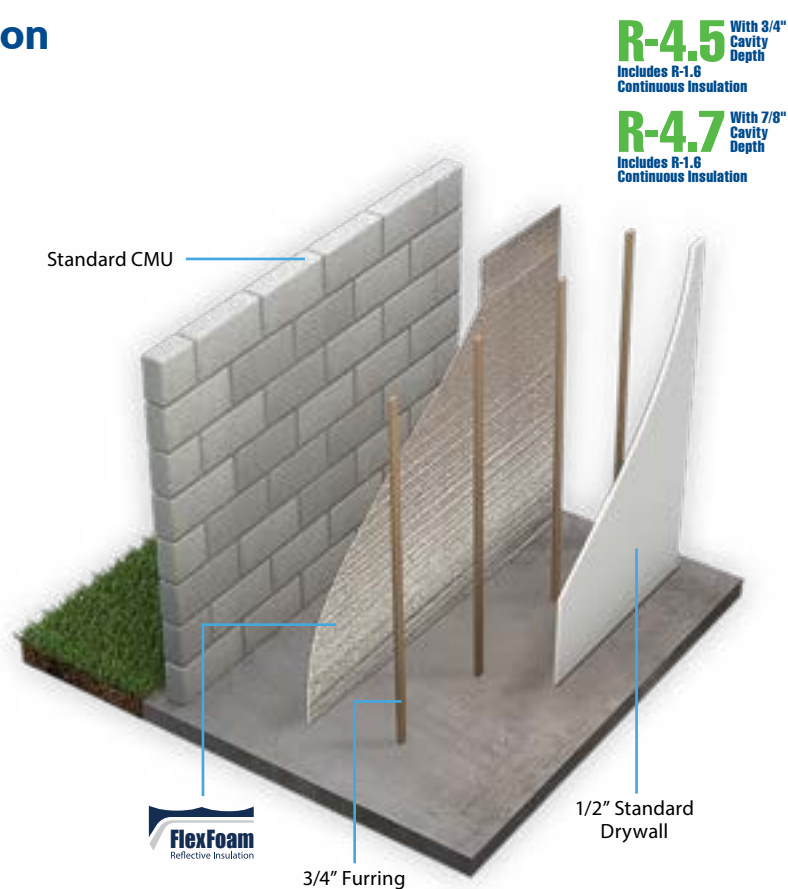
A continuous insulation solution that reduces radiant heat transfer for superior performance and a better alternative to foam board, especially in hot-humid climates. Perforated to allow vapor transmission and coated for long-term performance, the Flex Foam Low-e reinforced facing reduces up to 95% of radiant heat transfer to keep buildings cooler in the summer and warmer in the winter for greater comfort year-round.

FEATURES:

- 1/2" Closed Cell Polyethylene Foam
- Low-Emittance Reinforced Aluminum Facing
- Continuous Insulation to Reduce Thermal Bridging
- Easy to Install with Less Joints versus Foam Board²

BENEFITS:

- Adds R4.5 – R4.7¹
- Adds R5.9 – R6.5+ when used with AA2, M Shield or Core Foam1
- Perforated to Allow Vapor Transmission
- 1 Roll of 48" = 8 Sheets of Foam Board²



RBI Shield™ Multipurpose Reflective Bubble Insulation



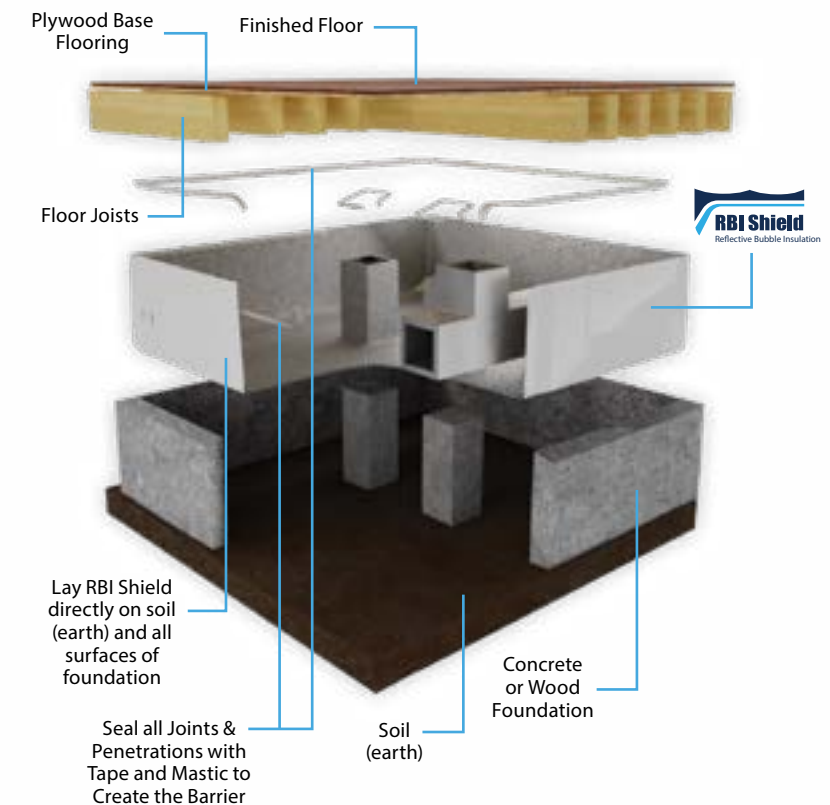
RBI Shield™ is a multi-purpose reflective bubble insulation designed for use in residential, commercial or institutional buildings. Available in single or double bubble versions, RBI Shield is versatile and easy to use in many areas across the building envelope, including sealed crawl spaces. The Low-e reflective surfaces keep floors warmer in the winter and cooler in the summer and can reduce the load on HVAC systems. This insulation reduces condensation and can gain up to R16 on the bottom of floor joists. 10-year warranty.

FEATURES:

- Flexible, Multi-Use Reflective Bubble Insulation
- Single or Double Bubble Versions
- Moisture Resistant Material
- Class A Flammability Rating
- 7 Sizes Available to Fit a Wide Range of Applications

BENEFITS:

- Adds up to R16¹
- Third-Party Verified Code Compliance
- Improves Thermal Performance & Comfort Year-Round
- Reduces Condensation



GFP Insulation™ Gas Filled Panel Technology



GFP Insulation™ contains baffled chambers formed by honeycombed layers of Low-e metalized aluminum. An ideal insulation for thermal and acoustic applications in the transportation, aerospace and packaging industries. GFP can be filled with air, argon, xenon or krypton and boasts excellent sound attenuation ratings. Resists mold and mildew growth. 10-year transferable warranty.

FEATURES:

- Lawrence Berkeley National Laboratory developed
- Five (5) Low-e Internal Baffled Chambers
- Baffled Chambers Fill with Air, Argon or Other Inert Gases
- Ships flat
- Moisture resistant

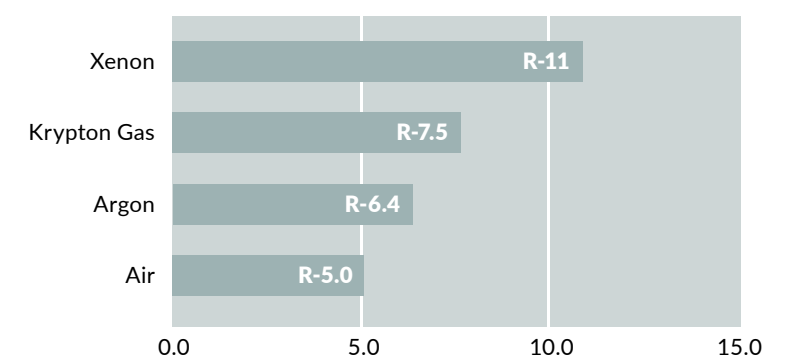
BENEFITS:

- Unique, High Thermal Performance System
- Clean, Inert Gases are Safe for the Environment
- Fiber Free with Zero Mold Growth
- Adds R13 with 1 Layer, R22 with 3 Layers¹

COMPLIANCE AND APPROVALS:

- Meets LEED and other Green Building Program Requirements

R-Value of 1.5" GFP Insulation Panel with Selected Gas Components



Available for Larger Scale Special Projects

SkyFlex™ Flexible Sheet Air Barrier – Class I Vapor Retarder



SkyFlex™ is a tough, flexible air barrier for residential and commercial applications, and can be used alone or in combination with other mass insulation. Improve thermal performance year-round. Low-e reflective surfaces reduce radiant heat transfer and increase R-value by enhancing air of adjacent films or enclosed cavities. Adds up to R1.7 with one side exposed to attic and up to R2.9 with 3/4" enclosed air space.

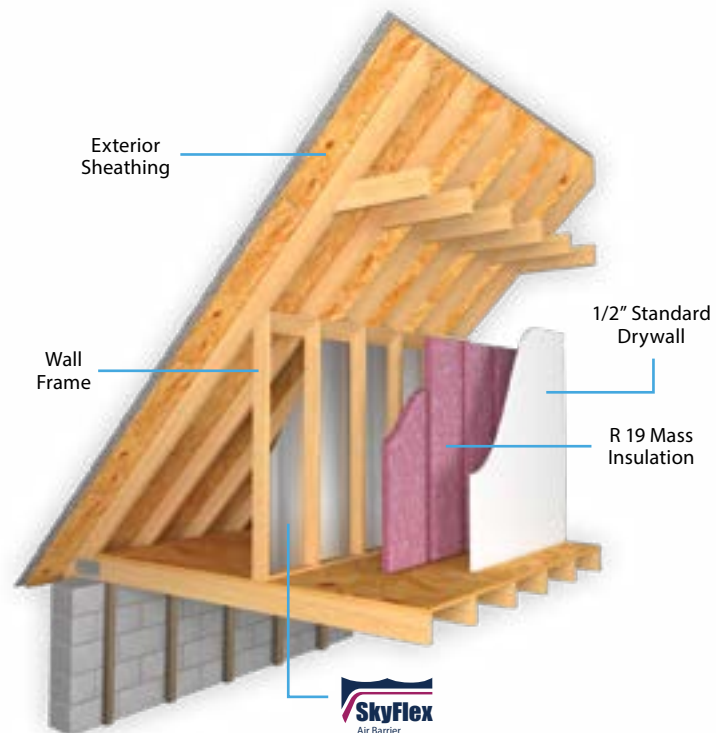
FEATURES:

- Premium Flexible Sheet Air Barrier
- Low-e Surfaces Reduce Radiant Heat Transfer
- Tough, Puncture-Resistant Material Won't Tear
- Flexible sheet for easy handling

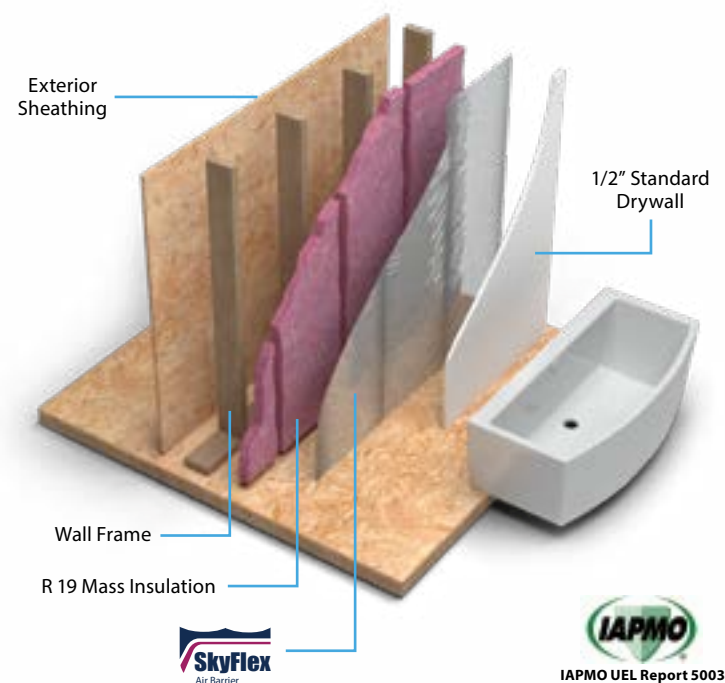
BENEFITS:

- Improves Thermal Performance of Building Envelope
- Significantly Improves Comfort in Living Areas with Exposed Walls
- Solid Material is a Class I Vapor Retarder
- 1 Roll = 16 Sheets of Rigid Board⁴
- 1 Pallet Covers as much as 2 Pallets of Rigid Board

This System Gain Up to: **R1.4¹** Attic Side
R2.0¹ with 3/4" Enclosed Air Space



This System Gain Up to: **R1.7¹** Attic Side
R2.9¹ with 3/4" Enclosed Air Space



Radiant Shield™ Premium Sheet Two-sided Radiant Barrier



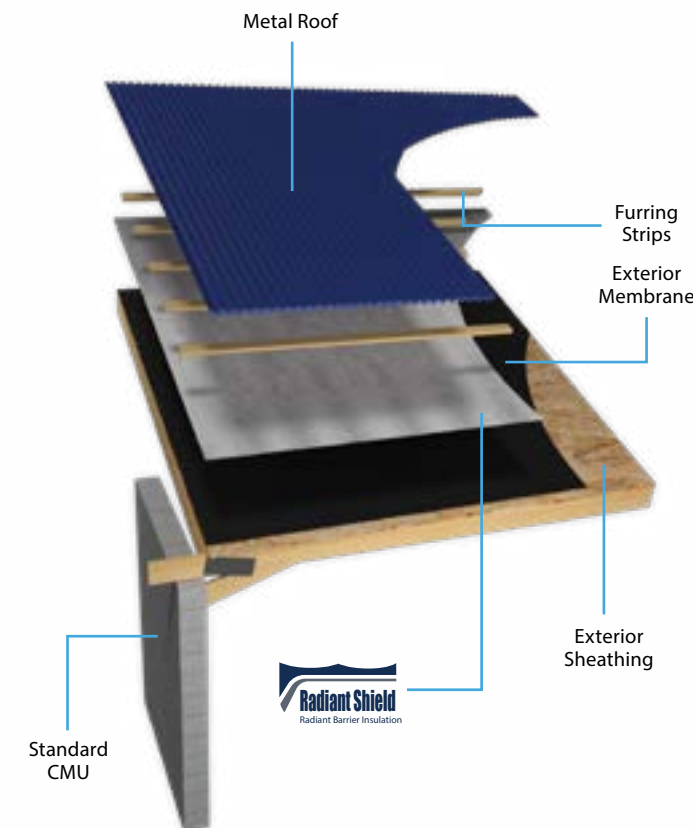
Radiant Shield™ is a single-layer radiant barrier that can be used alone or in combination with other mass insulation. Stops up to 95% of heat transfer at the roof. Improves HVAC system performance by reducing the amount heat transfer through the attic and ductwork for better energy efficiency and indoor comfort. Perforated to allow vapor transmission.

FEATURES:

- Premium Grade Radiant Barrier
- Reflects 95% of Radiant Heat at the Roof
- Metalized Aluminum Deposited on Each Side of a Layer of Woven Polyethylene
- Perforated to Allow Vapor Transmission

BENEFITS:

- Reduces Attic Temperatures in the Summer
- Improves Performance of HVAC Ducts and System Efficiency
- Effective Performance as a Vented System Under Metal Roofs
- Reduces Heat Loss in the Winter



Silver Shield™ Attic Radiant Barrier - Premium Multi-Layer



Silver Shield™ is a multi-layered radiant barrier solution that can be used alone or in combination with other mass insulation. The highest performing radiant barrier on the market, Silver Shield stops up to 97% of radiant heat at the roof to reduce attic temperatures by up to 30 degrees in the summer months. Improves HVAC duct and system performance by up to 50%. Perforated to allow vapor transmission. 20-year transferable warranty.

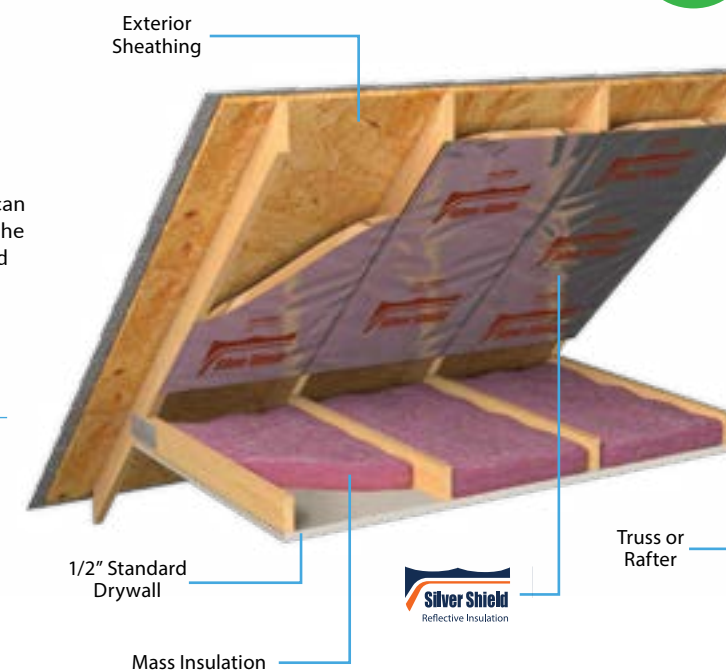
FEATURES:

- Premium Grade Multi-Layer Radiant Barrier
- Reflects 97% of Radiant Heat at the Roof
- Third-Party Verified Code Compliance
- Outer Layer of Kraft Paper Reinforced with Aluminum

BENEFITS:

- Proven Performance Reduces Attic Temperatures up to 30°F in the Summer
- Improves HVAC System Performance by up to 50%
- Keeps Homes Cooler in the Summer and Warmer in the Winter for greater comfort
- Highest Performing Radiant Barrier on the Market

Reduces Attic Temps **As Much As 30°**



RF Shield™ SCIF Barrier for Sensitive Compartmented Information Facilities



RF Shield™ is a multi-layered security shielding solution to block electromagnetic (EM) and radio frequency (RF) interference to protect highly sensitive information. Reduces sound attenuation and meets or exceeds shielding effectiveness requirements of the NSA.

FEATURES:

- Multi-Layered Security Shielding
- Solid or Perforated Versions
- Two (2) Outer Layers of 99% Pure Aluminum Foil
- Inner Layer of Fiberglass Reinforcing & Kraft Paper

BENEFITS:

- Protects Highly Sensitive Information
- Blocks Electromagnetic (EM) Interference
- Blocks Radio Frequency (RF) Interference
- Third-Party Verified for Shielding Effectiveness by NSA Approved TEMPST Facility, IEEE 299



FSK Shield™ Class A Insulation-Facing / Vapor Retarder



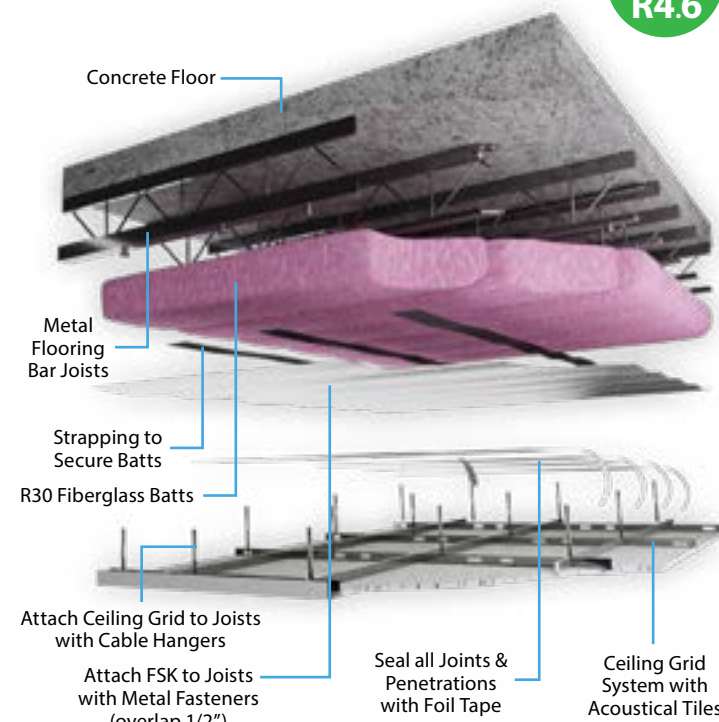
FSK Shield™ is a cost-effective radiant insulation solution with a single-sided Low-e foil facing reinforced with fiberglass scrim bonded to natural kraft paper. FSK can be used alone or in combination with other mass insulation and is commonly used as a Class A facing for unfaced batts or plenum ceiling applications. Adds up to R4.6 to exposed roof or ceiling systems. An easy, economical alternative to expensive foil-faced batts.

FEATURES:

- Class A Insulation Facing
- Ideal for Unfaced Batt
- Can Be Used as Radiant Barrier for Attics, Roofs and Walls
- Low-e Aluminum Foil Bonded to Natural Kraft Paper

BENEFITS:

- Adds R4.6 to an Exposed Roof or Ceiling Applications¹
- Cost Effective Method to Meet Code Requirements for Class A Flammability
- Replaces Expensive Foil-Faced Batt
- Increases Thermal Resistance for Better Performance



This System Gain **R4.6**¹

RetroShield System® Metal Building Insulation for Retrofit & New Construction



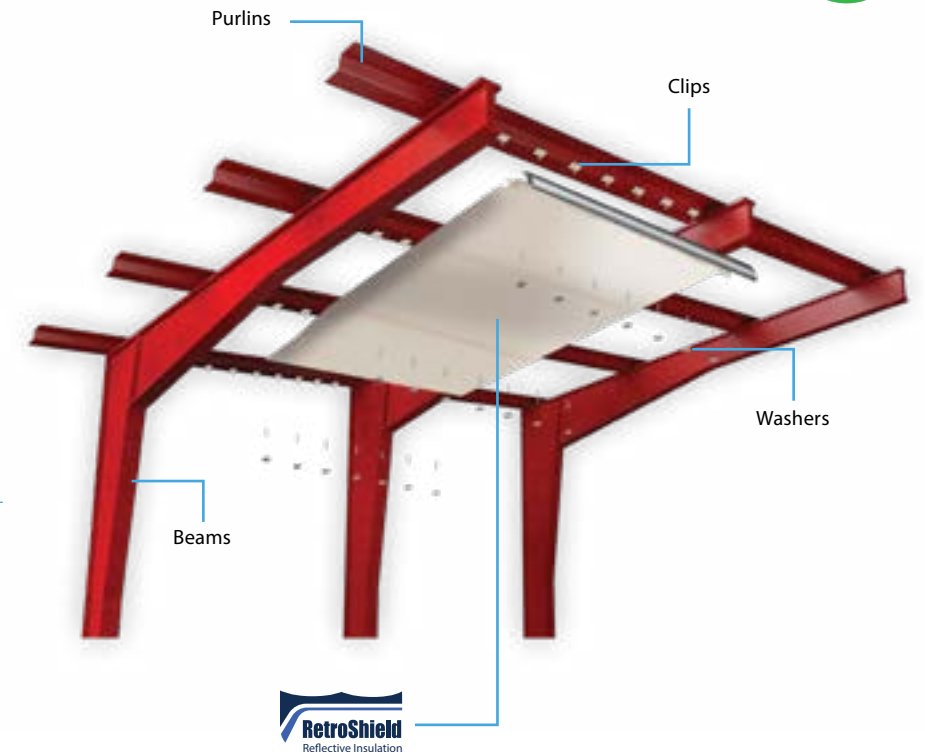
RetroShield System® is an advanced, high-performance, double bubble insulation system that can be used alone or in combination with other mass insulation in new and existing metal buildings. Features a patented Clip & Pin technology that allows quick and easy installation without glue or support cables. Adds up to R16 of thermal performance in commercial, agricultural or institutional metal buildings. 10-year warranty.

FEATURES:

- Flexible, High Performance Reflective Double Bubble Insulation
- Reduces Thermal Bridging for Continuous Insulation
- Patented Clip & Pin Components for a Strong Mechanical Connection
- Variety of Clip & Pin Components & Facing Color Options

BENEFITS:

- Adds R16 without Additional Insulation¹
- Improves Thermal Performance & Comfort and Saves Energy to Reduce Operating Costs
- White/Reflective System Doubles as a Beautiful Ceiling and Creates a Brighter Workspace



Mechanical Fastener Systems Clip-Pin and Washer Components



Mechanical Fastener Systems are designed to fit most metal structures and some types of wood framing. Clip-pin & washer components make installation quick and easy and provide a strong mechanical connection that can hold up to 60 lbs of backloaded insulation.

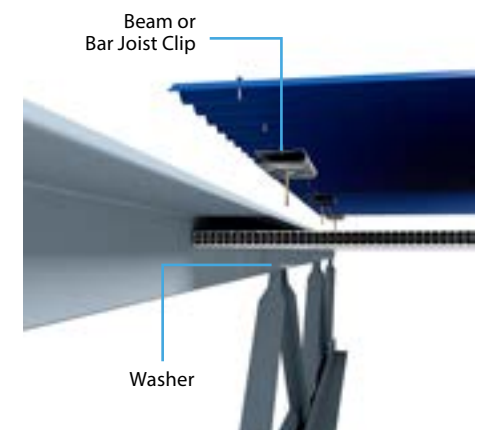
The Mechanical Fastener Systems work well with most metal building insulation, including bubble insulation, vinyl-faced fiberglass and other facings.

FEATURES:

- Electro Galvanized Steel Fasteners
- Designed to fit All Types of Metal Framing
- Works Well with MBI, Bubble Insulation or Facings
- Reduces Thermal Bridging

BENEFITS:

- Provides a Strong, Secure Mechanical Connection
- No Glue or Banding Needed
- Provides a Continuous Insulation Solution
- Easy One Pass Installation Reduces Operational Downtime on Retrofits



Garage Door Insulation Kit



Garage Door Insulation Systems are versatile and work well with single or double doors. Easy to cut and install, complete with double-sided tape. Beautiful white facing brightens the garage, offering a clean, finished look.

Low-e surfaces reflect 95% of radiant heat for superior thermal performance to keep the garage cooler in the summer and warmer in the winter. Kit can be installed over garage door hardware for a continuous insulation solution.



FEATURES:

- Flexible, High Performance Reflective Double Bubble Insulation
- Fits All Types of Single & Double Garage Doors
- Low-e Surface(s) Reflect 95% of Radiant Heat
- Available in White/Reflective

BENEFITS:

- Insulate New & Existing Doors
- No Itchy Fibers, Easy to Install
- Beautiful Appearance
- Class A Fire Rating
- Increases Comfort and Efficiency by Keeping Garages Cooler in the Summer and Warmer in the Winter

Tapes



Fi-Foil offers high-quality reflective and other tapes to seal our reflective insulation systems. We recommend using Fi-Foil tapes to seal all joints and penetrations.

Fi-Foil offers the following tapes:

- Aluminum Foil Tape
- FSK Tape
- Polyester White and Silver Tape
- SCIF Conductive Tape
- SCIF EMI Shielding Tape
- Double-Sided Tape

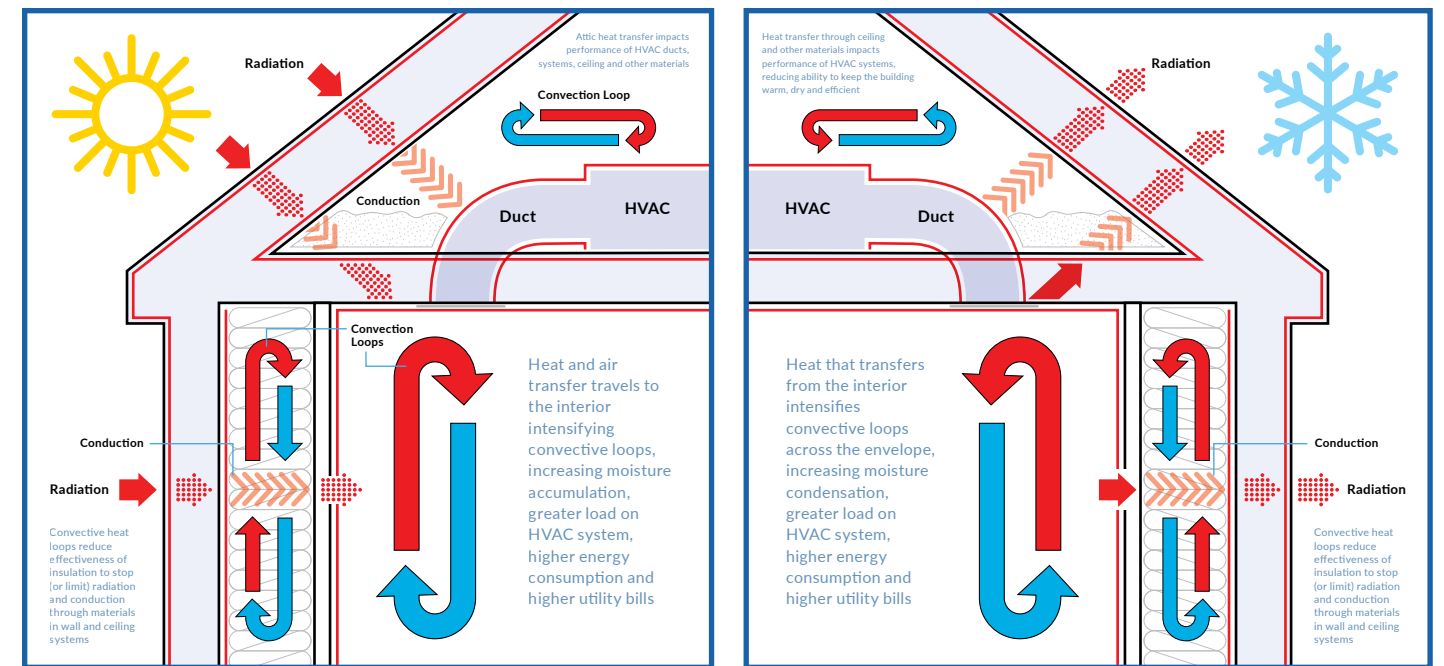


FEATURES:

- Aluminum, Polyester, Polypropylene and Metal Backings
- Strong Acrylic Adhesives and Polymers
- Conductive or EMI Shield Backing for Sensitive Compartmented Information Facilities (SCIF)

BENEFITS:

- Tape Solutions to Fit a Variety of Needs When Sealing Joints and Penetrations
- High Quality Materials and Adhesives Ensure Lasting Performance of Systems
- Aluminum and SCIF Tapes Ensure R-value and EMI Shielding Code Compliance



Fi-Foil Technology & The Science of Heat Flow

Unlike traditional thermal insulation, Fi-Foil uses Low-e surfaces to reflect heat rather than absorb it. Low-e surfaces are designed to face enclosed air cavities or air films across the building envelope, resulting in greater performance of the wall, ceiling and floor systems. According to the ASHRAE Handbook 26.14-15, reflective insulation can provide 2X the thermal performance of other mass insulation and materials. The reason is that reflective insulation technologies can effectively **reduce all three modes of heat transfer: conduction** (heat transfer between object in direct contact), **convection** (the circular flow of heat through air and moisture) and **radiation** (the movement of heat in electromagnetic waves). *Studies have shown that when a radiant surface is installed facing a small air space in a hybrid system, the result is a reduction in convection in that cavity, which in turn reduces conductivity of the other mass insulating material(s). Using a reflective component in the assembly not only improves performance of air spaces across the envelope—but it also notably improves the thermal performance of other mass insulation in these assemblies. This provides superior performance and energy efficiency for a more sustainable, resilient building.* Fi-Foil insulation can be used alone in hot-humid climates or part of a hybrid system in any climate.

Insulation Type & Heat Flow Comparisons

Description	Conduction	Convection	Radiation
Cavity, Air Only – No Insulation	BASELINE	BASELINE	BASELINE
Fiberglass Batts	Minor Increase	Major Decrease	Minor Decrease
High Density FG Batts	Minor Increase	Major Decrease	Decrease
Spray Foam, OC	Increase	Major Decrease	Decrease
Spray Foam, CC	Decrease	Major Decrease	Decrease
Foam Board, Expanded Polystyrene	Increase	Major Decrease (If space is filled)	Decrease
Foam Board, Extruded Polystyrene	Decrease	Major Decrease (If space is filled)	Decrease
Multi-layer Reflective Insulation (Wall cavity - Heat Flow Horizontal)	Minor Increase	Minor Decrease	Major Decrease
Gas Filled Reflective Insulation Panels (With Argon Gas)	Major Decrease	Decrease	Major Decrease
Hybrid Reflective Insulation and OC Spray Foam	Increase	Major Decrease	Major Decrease
Hybrid Reflective Insulation and CC Spray Foam	Decrease	Major Decrease	Major Decrease

RESIDENTIAL APPLICATIONS

REFLECTIVE INSULATION & RADIANT BARRIERS



Attic

- 1 **SkyFlex™ Flexible Sheet Air Barrier - Class I Vapor Retarder** - Attic Knee Wall 6-sided cavity shown with SkyFlex and R19 fiberglass batt installed in bonus room above the garage.
- 2 **Silver Shield™ Attic Radiant Barrier** - Attic Radiant Barrier shown with Silver Shield™ installed directly on bottom of top cord of roof trusses.

2nd Floor

- 3 **HY-Fi® Hybrid Frame Wall & Ceiling Reflective Insulation** - Hybrid Frame Wall System shown with HY-Fi® installed over 2" of closed cell spray foam in 2x4 framing, works with minimum 1-1/2" enclosed cavity air space to add R7 to the assembly.
- 4 **SkyFlex™ Flexible Sheet Air Barrier - Class I Vapor Retarder** - Bathroom shown with SkyFlex™ installed behind shower tile.

1st Floor

- 5 **Flex Foam 1/2" Continuous Reflective Insulation Hybrid with M-Shield®** - Walls shown with Flex Foam hybrid installed on masonry block with 7/8" furring and M-Shield® (R6.5) Flex Foam can also be installed alone on masonry block with minimum 3/4" furring (R4.5+)
- 6 **HY-Fi® Hybrid Frame Wall & Ceiling Reflective Insulation** - Hybrid Frame Ceiling shown with HY-Fi® installed over R-19 fiberglass batt on the face of ceiling beam cavities, works with minimum 1-1/2" enclosed cavity air space to add R7 to the assembly.

Basement Floor

- 7 **VR Plus Shield™ Masonry Wall Reflective Insulation** - Basement wall assembly shown with 1/2" foam board (R3) installed on masonry block combined with VR Plus Shield™ attached to 1-1/2" framing (R7).
- 8 **RBI Shield™ Multi-Purpose Reflective Bubble Insulation** - Sealed Crawl space shown with RBI Shield™ installed on walls, reflective side up, joints and penetrations sealed with tape and mastic.

COMMERCIAL & METAL BUILDING APPLICATIONS

REFLECTIVE INSULATION & RADIANT BARRIERS



Metal Building

- 1 **HY-Fi® Hybrid Frame Wall & Ceiling Reflective Insulation** - Hybrid Frame Wall shown in metal building office with HY-Fi® installed over 2" of fiberglass in 2x4 framing; alternative is HY-Fi® installed over 2" of closed cell spray foam; works with a minimum 1-1/2" enclosed cavity air space to add R7 to the assembly.
- 2 **RetroShield System® Metal Building Insulation for Retrofit & New Construction** - Metal Building Insulation shown as retrofit with RetroShield System® installed over existing insulation on roof and wall purlins; adds R16.

Mixed Use Residential/Commercial Building

- 3 **SkyFlex™ Flexible Sheet Air Barrier – Class I Vapor Retarder** - SkyFlex VT™ shown installed in wet room/bathroom behind shower over fiberglass insulation in 2x4 framing.
- 4 **Silver Shield™ Attic Radiant Barrier - Premium Multi-Layer** - Silver Shield™ shown installed on bottom of top cord attic trusses.
- 5 **HY-Fi® Hybrid Frame Wall & Ceiling Reflective Insulation** - Hybrid Frame Wall shown with HY-Fi® installed over 2" of closed cell spray foam in 2x4 framing; works with a minimum 1-1/2" enclosed cavity air space to add R7 to assembly.
- 6 **RF Shield™ SCIF Barrier for Sensitive Compartmented Information Facilities** - SCIF system shown with RF Shield™ installed between two layers of drywall on the walls, ceiling and floor.

- 7 **VR Plus Shield™ Reflective Insulation - Multi-layer for Masonry Walls** - Walls shown with VR Plus Shield™ installed on masonry block with 1-1/2" furring; adds R7.
- 8 **Flex Foam 1/2" Continuous Reflective Insulation Hybrid with M-Shield®** - Walls shown with Flex Foam installed on masonry block with 7/8" framing and M-Shield® (R6.5) Flex Foam can also be installed alone on masonry block with minimum 3/4" furring (R4.5+)
- 9 **FSK Shield™ Class A Facing - Vapor Retarder - Plenum Ceiling** - Plenum Ceiling system shown with FSK Shield™ attached to floor joists under secured fiberglass batt.

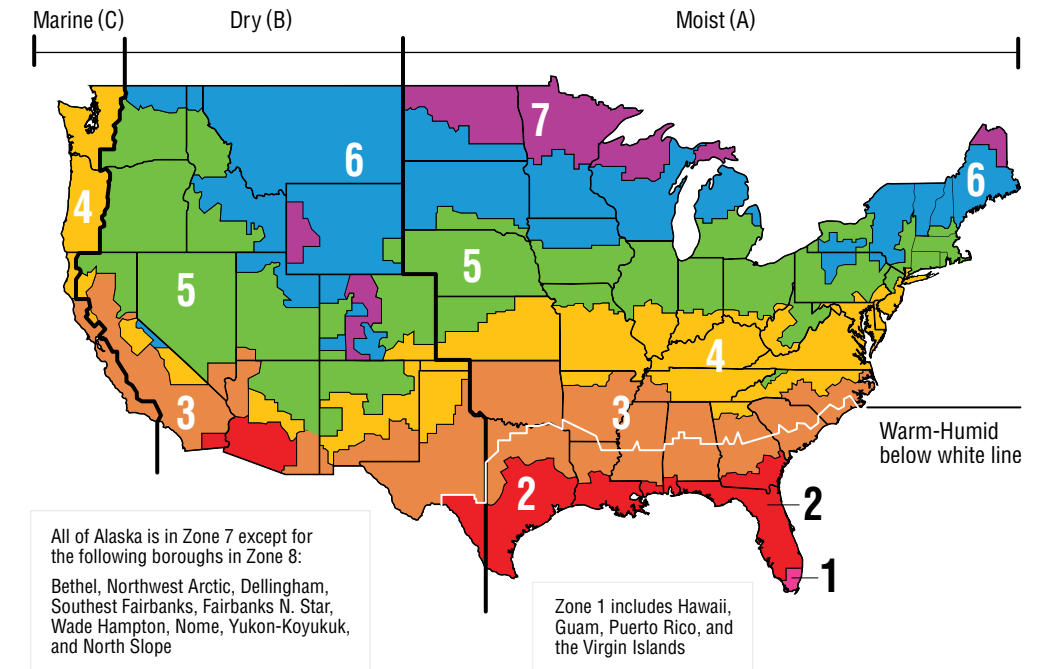


Fi-Foil Products & Applications

Products ¹	Widths		SPECIFICATIONS					STRUCTURES			APPLICATIONS									
	Roll Size	Widths	Versions Available in All Widths	Enclosed Cavity Air Space	R-Value ² Heat Flow Horizontal	R-Value ² Heat Flow Down	R-Value ² Heat Flow Up	Compliance ⁴ Approvals	Masonry	Frame	Metal	Walls	Attics, Ceilings, Plenums, Roofs	Floors, Crawl Spaces, Basements	Garages, Workshops, Barns	Metal or Tile Roofs	Metal Buildings	OEM		
REFLECTIVE INSULATION																				
VR Plus Shield™	16" o.c.	500 SF	Perforated Semi-Permeable ²	1-1/2", 1-5/8"	R7.0 - R7.1	—	—	ASTM C1224	X			X		X						
	24" o.c.	500 SF	Solid Vapor Retarder																	
M-Shield® Paperless	16" o.c.	500 SF	Perforated Semi-Permeable ²	3/4", 7/8", 1-1/2"	R4.1 - R5.1	—	—	ASTM C1224	X			X		X						
	24" o.c.	500 SF	Solid Vapor Retarder																	
AA2 Vapor Shield™	16" o.c.	500 SF	Perforated Semi-Permeable ²	3/4", 7/8", 1-1/2"	R4.1 - R5.1	—	—	ASTM C1224	X			X		X						
	24" o.c.	500 SF	Solid Vapor Retarder																	
Flex Foam	16" o.c.	500 SF	Perforated Semi-Permeable ²	3/4", 7/8", 1-1/2"	R4.5 - R4.7	—	—	ASTM C1224	X			X		X						
	24" o.c.	500 SF	Solid Vapor Retarder																	
HY-Fi®	16" o.c.	500 SF	Perforated Semi-Permeable ²	1-1/2" - 2"	R7.0 - R7.1	≥R7.0 ⁵	—	ASTM C1224		X		X	X	X	X		X			
	24" o.c.	500 SF	Solid Vapor Retarder																	
RBI Shield™ Multi-Purpose Double Bubble	16"	166 SF	Double Bubble, Reflective One Side & either Reflective, White or Black on the other Side	1"	R4.1 - R5.5	R6.5 - R10	R3.4 - R4.1	ASTM C1224	X	X	X	X	X	X	X					
	24"	250 SF										X	X	X	X					
	48"	500 SF										X	X	X	X					X
	54"	563 SF										X	X							X
	66"	688 SF										X	X							X
	72"	750 SF										X	X							X
GFP Insulation™ Gas Filled Panels	Contact Us		Reflective/Reflective 1-3 Layers with Argon Gas	N/A	R16 - R22	R13 - R22	—	ASTM C1224	X	X								X		
	ATTIC RADIANT BARRIERS																			
Silver Shield™	16"	500 SF	Multi-Layer	N/A	—	—	—	ASTM C1313	X	X		X	X							
	24"	500 SF	Perforated Semi-Permeable ²																	
	30"	250 SF																		
Radiant Shield™	25.5"	500 SF	Premium Single Sheet	N/A	—	—	—	ASTM C1313	X	X		X	X	X	X					
	48"	500 SF	Perforated Semi-Permeable ²																	
	51"	500 SF																		
AIR BARRIERS																				
SkyFlex™	48"	500 SF	Flexible Sheet Solid Air Barrier Vapor Retarder	—	R1.7 - R2.9	—	—	ASTM E2178 IAPMO UEL-5003	X	X		X	X	X	X					
	51"	500 SF																		
SCIF BARRIERS																				
RF Shield™	51"	500 SF	Flexible Sheet Electromagnetic/Frequency Blocking Perforated Semi-Permeable Solid Vapor Retarder	N/A	—	—	—	ASTM 3057 ASTM 4935 IEEE 299	X	X	X	X	X	X	X	X	X	X	X	
OTHER SPECIALTY BARRIERS																				
FSK Shield™ Vapor Retarder	54"	1000 SF	Flexible Sheet Class A Facing	Air Film	R1.7	R4.55	R1.32	ASTM E84	X	X	X	X	X	X	X	X	X	X	X	
METAL STRUCTURES INSULATION																				
RetroShield® Advanced System Beams Purlins Joists	54"	563 SF	Attached to Bottom of Purlins - Reflective/Reflective, White or Black with 6" or Greater Air Space	6" Minimum when used Alone	R4.4 to 5.4 Alone or Higher with Hybrid	R10 to 16 Alone or Higher with Hybrid	R4.0 to 4.7 Alone or Higher with Hybrid	ASTM C1224				X	X	X		X		X		
	66"	688 SF										X	X	X		X		X		
	72"	750 SF										X	X	X		X		X		
	96"	1000 SF										X	X	X		X		X		
Mechanical Fasteners	4" x 1"	N/A	Beam or Bar Joist Clip Metal Framing	—	—	—	—	—				X			X		X			
	2" x 1"	N/A	Purlin Clip (C or Z Type Purlin) Metal Framing	—	—	—	—	—				X	X	X		X		X		
	2" x 1"	N/A	Angle Clip (Walls, Floors, Misc) Metal & Wood Framing	—	—	—	—	—	X	X	X	X	X	X		X		X		
	2" x 1"	N/A	Tube Clip (Rectangular or Square Framing) Metal & Wood Framing	—	—	—	—	—		X	X	X	X	X		X		X		
	4" x 1"	N/A	Tube Clip (Rectangular or Square Framing) Metal & Wood Framing	—	—	—	—	—		X	X	X	X	X		X		X		
	1"	N/A	Washers White, Silver or Black	—	—	—	—	—	X	X	X	X	X	X		X		X		

CLIMATE ZONES						
1	2	3	4	5	6	7
REFLECTIVE INSULATION						
Alone or Hybrid	Alone or Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid
Alone or Hybrid	Alone or Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid
Alone or Hybrid	Alone or Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid
Alone or Hybrid	Alone or Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid
Alone or Hybrid	Alone or Hybrid	Hybrid	Hybrid	Hybrid	Hybrid	Hybrid
Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid
Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid
ATTIC RADIANT BARRIERS						
Alone	Alone	Alone	Alone	Alone	Alone	Alone
Alone	Alone	Alone	Alone	Alone	Alone	Alone
AIR BARRIERS						
Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid
Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid
SCIF BARRIERS						
Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid
Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid
OTHER SPECIALTY BARRIERS						
Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid
Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid
METAL STRUCTURES INSULATION						
Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid
Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid
Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid
Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid
Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid
Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid	Alone or Hybrid

Climate Zone Map



¹ Fi-Foil Products are designed to be used alone or combined with other insulation as part of a system
² Semi-permeable versions of reflective insulation are highly recommended in hot-humid climates
³ R-Values vary based on amount of enclosed air space, air films, r-value of other insulation used in combination and the direction of heat flow; contact us for an engineered solution
⁴ For additional compliance information, see specification sheets available on product pages at Fifiol.com
⁵ R-value calculations have been completed for a range of insulation combinations; contact us for an engineered solution

HYBRID means product must be used with another insulation (e.g. fiberglass, foam board or spray foam) in order to meet R-value requirements of Energy Codes in certain climate zones

ALONE or **HYBRID** means product can either be used alone to meet Energy Codes or as part of a system with other insulation (e.g. fiberglass, foam board or spray foam) to meet higher R-value requirements for certain projects or in certain climate zones