Installation Instructions for Reflectix, Inc. Double Reflective Insulation



Product consists of two, 96% reflective layers of film bonded to two internal layers of heavy gauge polyethylene bubbles (5/16" thick). The product is available with a standard or staple tab edge (photo to the left). Reflectix offers their Reflective Insulation in 16", 24" and 48" widths by 25'

and 100' lengths.

<u>Products</u>: Reflectix[®] Double Reflective Insulation with the product code prefixes "BP" and "ST"

<u>Pdf Links</u>: Click on the application below for the for the location of a detailed Installation Instruction pdf:

Metal Building Applications:

Roof / New Roof / Retrofit Wall / New Wall / Retrofit

Post Frame Building Applications: Roof / New Roof / Retro / Bottom of Purlins Roof / Retro / Bottom of Trusses Wall / New Wall / Retrofit

Residential Applications:

Attic Basement Ceiling Behind Hot Water Radiator Cathedral Ceiling Crawl Space R-16 Crawl Space R-21 Duct Insulation R-4.2 Duct Insulation R-6.0 Garage Door Knee Wall Pipe Wrap Radiant Floor - Wood Joists

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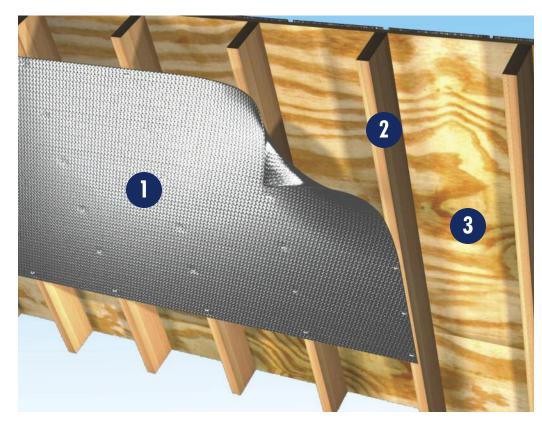


Reflectix

Storage Building Unique Applications Wall - 2"x 4" Wall - 2"x 6" Wall - Masonry Water Heater Wine Room Work Shop

DIY Attic | (Radiant Barrier)

Reflectix® Installation Instructions



- 1. Reflectix[®] Product
- 2. 2"x 6" Rafter
- 3. Roof Decking

Tools Required: Safety Glasses Staple Gun Tape Measure Utility Knife/Scissors

Recommended Products:

Reflective/Bubble/Bubble/Reflective - Roll: BP24025 (24"x 25'), BP48025 (48"x 25') Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST16025 (16"x 25'), ST24025 (24"x 25') Radiant Barrier, Reflective/Woven Fabric/Reflective - Roll (Heavy Duty): RB4812550 (48"x125')

<u>Note</u>: 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" function at www.reflectixinc.com/zip-code-zone-locator, or contact our Customer Service Group at (800) 879-3645.



<u>Reflective/Woven Fabric Radiant Barrier</u> Installation Instructions: (There are 2 options) 1. Underside of Rafter Method (depicted in illustration)

- 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 depending on roof pitch).
- 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 this Installation Method, please verify the location of your home with the "Zip Code Zone Locator" function 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).



<u>Reflective/Bubble Insulation</u> Installation Instructions: (There are 3 options) 1. Underside of Rafter Method (depicted in illustration)

- 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 depending on roof pitch).
- 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 this Installation Method, please verify the location of your home with the "Zip Code Zone Locator" function 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" 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 (either Staple Tab (ST Reflective/Bubble) or the edge of the BP Reflective/Bubble 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).

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[®].

Review These Important Safety Guidelines Prior to Installation:

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- ALWAYS use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- <u>ALWAYS</u> be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix $^{\!\!0}$ on bright sunny days, it is best to wear sun glasses.
- Do not work in areas such as attics when temperatures are too hot.
- Visit our website at www.reflectixinc.com for additional product and installation information.

Please Note:

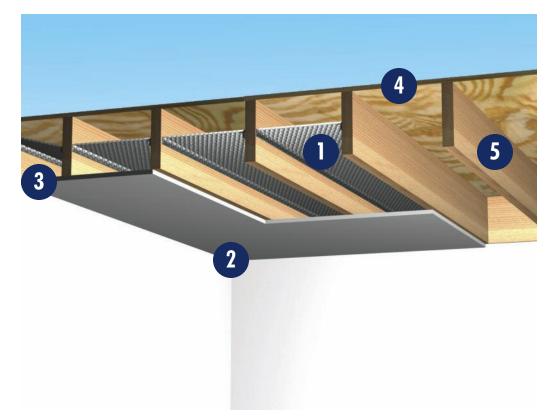
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Reflectix, Inc.



DIY Basement Ceiling (R-16)

Reflectix® Installation Instructions



- 1. Reflectix[®] Insulation
- 2. Sheet Rock
- 3. Band Board
- 4. Sub-Floor
- 5. Floor Joist
- Tools Required: Safety Glasses Staple Gun Tape Measure

Utility Knife/Scissors

Recommended Products:

Reflective/Bubble/Bubble/Reflective - Roll: BP24025 (24"x 25') Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST16025 (16"x 25'), ST24025 (24"x 25')

- Inspect the installation area and make any needed repairs before installing the Reflectix® Reflective/ Bubble product.
- Check the basement ceiling to determine whether the joists are 16" or 24" on-center.
- Begin at one end of the house and staple the product to the top of the band board or the subfloor (also terminating this course in this fashion).
- Insert the Reflectix[®] half way up into the joist cavity and staple (at approximately 3" to 4" intervals) the edge of the product to the side of the joist.
- The goal is to split the joist cavity into two approximately equal enclosed air spaces.
- Finish the ceiling with the specified panel or sheetrock.

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- <u>ALWAYS</u> be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
- Do not work in areas such as attics when temperatures are too hot.
- Visit our website at www.reflectixinc.com for additional product and installation information.

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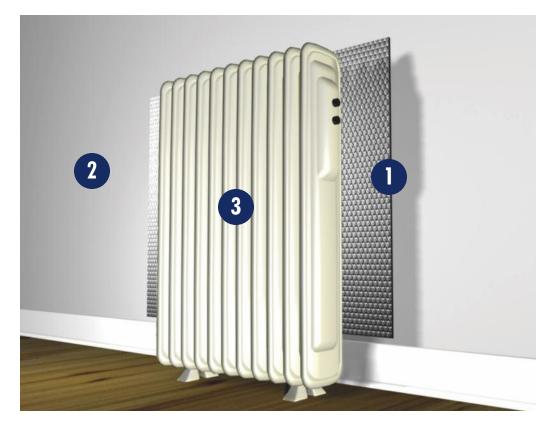
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Reflectix, Inc.



DIY Behind Hot Water Radiator (R-3.0)

R-3.0 and a Radiant Reflector Reflectix[®] Installation Instructions



- 1. Reflectix[®] Insulation 2. Wall
- 3. Hot Water Radiator

Tools Required: Safety Glasses

Tape Measure Utility Knife/Scissors

Recommended Products: Reflective/Bubble/Reflective - Roll: BP24025 (24"x 25'), BP48025 (48"x 25')

- Measure the width and height of the hot water radiator. It is personal preference (if and) to what degree the product extends beyond the top and sides of the radiator.
- Simply cut the Reflectix® Reflective/Bubble/Bubble/Reflective product to this dimension.
- Install product flush to the wall and without any contact to the radiator or plumbing.
- Secure the product to the wall utilizing a double-sided tape, Velcro strips, spray adhesive or staples.

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- <u>ALWAYS</u> be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
- Do not work in areas such as attics when temperatures are too hot.
- Visit our website at www.reflectixinc.com for additional product and installation information.

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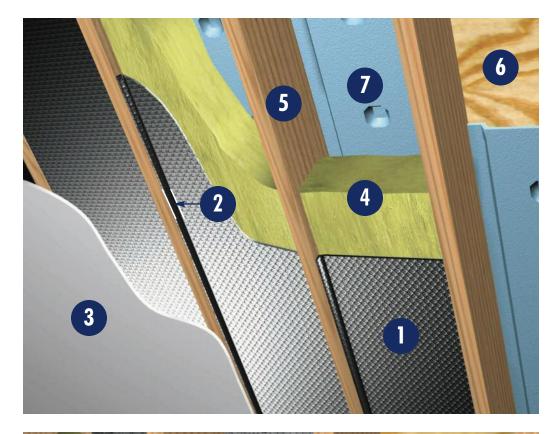
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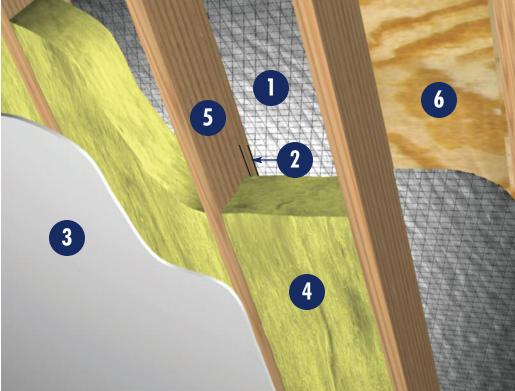
Reflectix, Inc.



DIY Cathedral Ceiling

Reflectix® Installation Instructions





Northern Zone of the USA -With Reflectix® Below the Mass Insulation • R-7.0 Summer & R-1.0 Winter and a Vapor/ Moisture Barrier

- 1. Reflectix[®] Insulation
- 2. Continuous 0.75" Air Space (minimum)
- 3. Sheet Rock
- 4. Fiberglass Insulation (non-compressed)
- 5. Rafter
- 6. Roof Decking
- 7. Rafter Cavity Vent

Tools Required: Safety Glasses Staple Gun Tape Measure Utility Knife/Scissors

Southern Zone of the USA -With Reflectix® Above the Mass Insulation • R-6.0 Summer & R-2.0 Winter or a Radiant Barrier - Blocks 96% Radiant Heat

- 1. Reflectix[®] Radiant Barrier
- 2. Continuous 0.75" Air Space (minimum)
- 3. Sheet Rock
- 4. Fiberglass Insulation (non-compressed)
- 5. Rafter
- 6. Roof Decking

Tools Required:

Safety Glasses Staple Gun Tape Measure Utility Knife/Scissors

Recommended Products:

Reflective/Bubble/Bubble/Reflective - Roll: BP24025 (24"x 25'), BP48025 (48"x 25') Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST16025 (16"x 25'), ST24025 (24"x 25') Radiant Barrier, Reflective/Woven Fabric/Reflective - Roll (Heavy Duty): RB4812550 (48"x125')

There are two methods for installing Reflectix products in a Cathedral Ceiling. For the Regional Recommendation on which installation method you should consider for your home, please utilize the "Zip Code Zone Locator" function at www.reflectixinc.com/zip-code-zone-locator, or contact our Customer Service Group at (800) 879-3645.



<u>Reflective Insulation</u> Installation Instructions: (There are 2 options) 1. Directly to Roof Deck - Above Fiberglass - Southern Zone of the USA Only

- Benefit R-6.0 Summer & R-2.0 Winter
- 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 the Reflectix® product from above will not interfere with performance).
- Do not block any venting (cut around).
- No need to cover rafters (no loop around).
- Ensure that a continuous air space (0.75 inch minimum) is on the bottom side of the Reflectix[®] product (required and for ventilation).
- Install venting and mass insulation per local codes and manufacturer's installation instructions.

2. Attached to the Lower Edge of the Rafter

Below the Mass Insulation (Fiberglass) - Northern Zone of the USA Only

- Benefit R-7.0 Summer & R-1.0 Winter and a Vapor/Moisture Barrier
- Either the 16" or 24" wide product (depending on rafter spacing) is recommended.
- The Staple Tab product is the easiest to work with for this application (but the Standard Edge product is equally effective).
- Install venting (required in Cathedral Ceilings) and mass insulation per local codes and manufacturer's installation instructions.
- A minimum of a 0.75" air space is required on the underside (towards the interior of the home) of the Reflectix® product. This air space can be created in one of two installation methods:
 - 1. Tuck the product up into the cavity and staple to the side of the rafter every 2 to 3 inches fully enclosing the rafter cavity.

- 2. Staple the product directly to the underside of the rafter every 2 to 3 inches fully enclosing the rafter cavity. Nail 1"x 2" (nominal) furring strips to the underside of the rafter (creating a continuous 0.75" cavity).
- Install interior panel per local codes and manufacturer's installation instructions.



<u>Reflective/Woven Fabric Radiant Barrier</u> Installation Instructions: Directly to Roof Decking - Above Fiberglass - <u>Southern Zone of the USA Only</u>

- Benefit Radiant Barrier Blocks 96% of radiant heat
- 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 the Reflectix[®] product from above will not interfere with performance).
- Do not block any venting (cut around).
- No need to cover rafters (no loop around).
- Ensure that a continuous air space (0.75 inch minimum) is on the bottom side of the Reflectix[®] product (required and for ventilation).
- Install venting and mass insulation per local codes and manufacturer's installation instructions.

Ventilation:

If ventilation is specified into your cathedral ceiling system, insure that you do not block ventilation paths when you install Reflectix[®].

Review These Important Safety Guidelines Prior to Installation:

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- ALWAYS use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- <u>ALWAYS</u> be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
- Do not work in areas such as attics when temperatures are too hot.
- Visit our website at www.reflectixinc.com for additional product and installation information.

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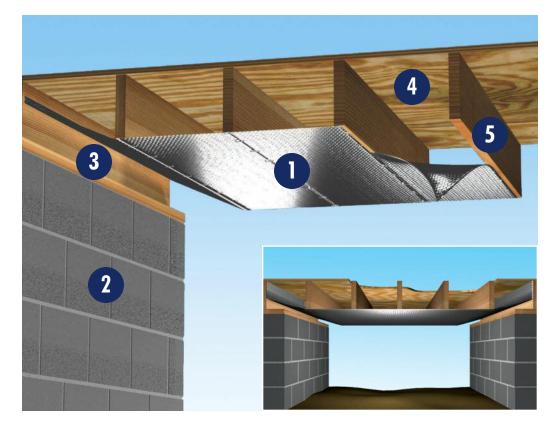
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Reflectix, Inc.



DIY Crawl Space (R-16)

Reflectix® Installation Instructions



- 1. Reflectix[®] Insulation
- 2. Concrete Block
- 3. Band Board
- 4. Sub-Floor
- 5. Floor Joist
- Tools Required: Safety Glasses Staple Gun Tape Measure Utility Knife/Scissors

Recommended Products:

Reflective/Bubble/Bubble/Reflective - Roll: BP24025 (24"x 25'), BP48025 (48"x 25') Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST16025 (16"x 25'), ST24025 (24"x 25')

- Inspect the crawl space and make any needed repairs before installing Reflectix[®] Reflective/Bubble product.
- Check the crawl space to determine whether the floor joists are 16" or 24" on-center.
- Determine if there are water pipes and heating ducts which hang below the floor joists. They will
 need to be insulated. Reflectix[®] Pipe Wrap and Duct Insulations are designed specifically for this use.
 There is no need to wrap water pipes or duct work that fall between floor joists. Reflectix[®] will provide
 adequate insulating without extra wrapping.
- Start at the end of the house and face staple to the bottom of the floor joists. Seal seams with Reflectix[®] Foil Tape to create a vapor barrier. At the end, staple up to the sub-floor or band board.
- Note: Existing mass insulation in the joist cavities must be dry prior to installing the Reflectix[®] product.

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- <u>ALWAYS</u> be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
- Do not work in areas such as attics when temperatures are too hot.
- Visit our website at www.reflectixinc.com for additional product and installation information.

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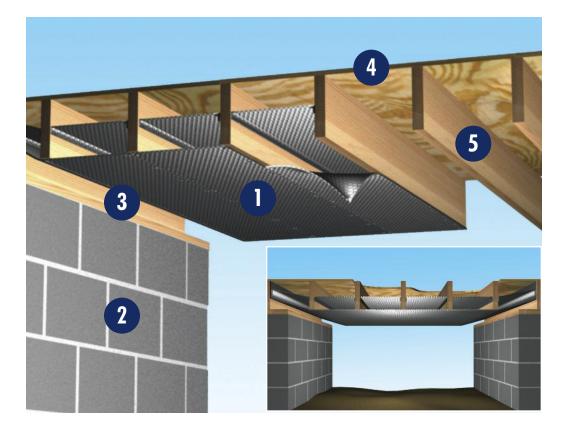
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Reflectix, Inc.



DIY Crawl Space (R-21)

Reflectix® Installation Instructions



- 1. Reflectix® Insulation
- 2. Concrete Block
- 3. Band Board
- 4. Sub-Floor
- 5. Floor Joist

Tools Required: Safety Glasses Staple Gun Tape Measure Utility Knife/Scissors

Recommended Products:

Reflective/Bubble/Bubble/Reflective - Roll: BP24025 (24"x 25'), BP48025 (48"x 25') Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST16025 (16"x 25'), ST24025 (24"x 25')

- Inspect the crawl space and make any needed repairs before installing Reflectix[®] Reflective/Bubble product.
- For floor joists that are 16" on-center, the installation is easiest with the Reflectix® Staple Tab (ST) product.
- Determine if there are water pipes and heating ducts which hang below the floor joists. They will need to be insulated. Reflectix[®] Pipe Wrap and Duct Insulations are designed specifically for this use. There is no need to wrap water pipes or duct work that fall between floor joists. Reflectix[®] will provide adequate insulating without extra wrapping.
- Begin at one end of the house and staple the first course of product to the top of the band board or the subfloor (also terminating this course in this fashion).

Insert the Reflectix[®] half way up into the joist cavity and staple (at approximately 3" to 4" intervals) the edge of the product to the side of the joist. The goal is to split the joist cavity into two approximately equal enclosed air spaces. It is easiest to utilize the Reflectix[®] Reflective/Bubble/Bubble/Reflective, Staple Tab product for this step.

- Continue with the second course of product at one end of a joist cavity (after the first course has been installed) and secure the product "end" with staples to the band board. Proceed down the joists by stapling each edge (or middle of the Reflective/Bubble/Bubble/Reflective 48" wide product) to the face (bottom surface) of each joist. Staple the product at intervals of approximately 3" to 4". At the end of the product run, staple the Reflectix[®] to the band board.
- Seal seams with Reflectix[®] Foil Tape to create a vapor/moisture barrier.

Review These Important Safety Guidelines Prior to Installation:

- <u>ALWAYS</u> check local building codes before installing Reflectix[®].
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- <u>ALWAYS</u> make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- <u>ALWAYS</u> be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
- Do not work in areas such as attics when temperatures are too hot.
- Visit our website at www.reflectixinc.com for additional product and installation information.

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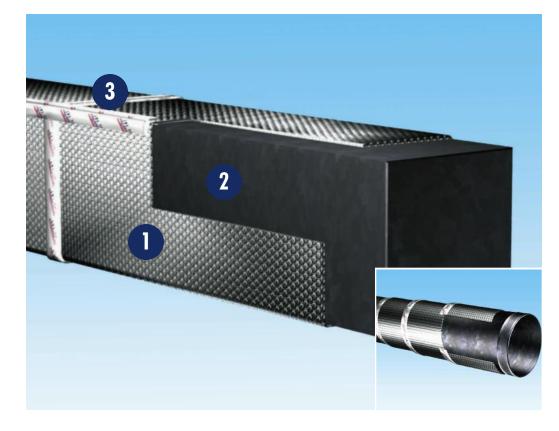
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Reflectix, Inc.



DIY Duct Insulation (R-4.2)

Reflectix® Installation Instructions



Reflectix[®] Insulation
 Metal Duct
 UL 181 Tape

Tools Required: Safety Glasses Tape Measure Utility Knife/Scissors

Recommended Products:

Reflective/Bubble/Bubble/Reflective - Roll: BP48025 (48"x 25') Duct Insulation, Reflective/Bubble/Bubble/Reflective - Roll: DW12025 (12"x 25')

Installation Instructions: (There are 2 options)

1. Spiral Wrap Directly Against Duct

(Reflective/Bubble/Reflective, Duct Insulation - Roll product)

- Make sure all metal joints, seams and penetrations are sealed.
- Spiral wrap Reflectix[®] around the duct, overlapping 2" as you proceed.
- If necessary, trim width of product to accommodate bends or diameter changes in the duct.
- Securely tape seams with a UL 181 Tape (goal is an air-tight, snug seam seal).
- Do not leave any exposed duct or space where air can enter between the duct and the Reflectix[®].

2. Standard Wrap (Reflective/Bubble/Bubble/Reflective - Roll product)

- Make sure all metal joints, seams and penetrations are sealed.
- Verify circumference of the duct.

- Cut the Reflectix[®] product to this length plus 2".
- Wrap the product around the duct and securely tape the linear and circumference seams (overlapping 1"- 2") with a UL 181 Tape (goal is an air-tight, snug seam seal). Do not leave any exposed duct or space where air can enter between the duct and the Reflectix[®].

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
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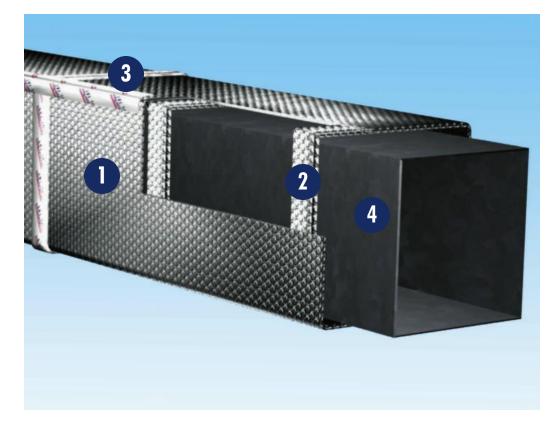
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Reflectix, Inc.



DIY Duct Insulation (R-6.0)

Reflectix® Installation Instructions



1. Reflectix[®] Insulation

2. Reflectix[®] Insulation Spacer Strips

3. UL 181 Tape

4. Duct

Tools Required: Safety Glasses Tape Measure Utility Knife/Scissors

Recommended Products: Double Reflective/Bubble Insulation - BP48025 (48"x 25')

- Make sure all metal joints, seams and penetrations are sealed.
- In order to obtain the R-6-0, a 3/4" air space (spacer strip) is required between the Reflectix[®] Reflective/ Bubble/Bubble/Reflective product and the duct surface. A spacer strip can be created by cutting Reflectix[®] into 2" wide strips and double wrapping (the strips) around the circumference of the duct every 24".
- Verify the circumference of the duct at the mid-point of a spacer strip.
- Cut the Reflectix[®] product to this length plus 2".
- Wrap the product around the duct and securely tape the linear and circumference seams (overlapping 1"- 2") with a UL 181 Tape (goal is an air-tight, snug seam seal).
- Do not leave any exposed duct or space where air can enter between the duct and the Reflectix[®].

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- <u>ALWAYS</u> be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
- Do not work in areas such as attics when temperatures are too hot.
- Visit our website at www.reflectixinc.com for additional product and installation information.

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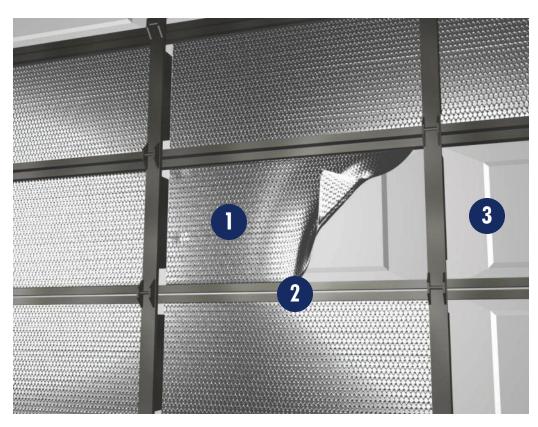
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Reflectix, Inc.



DIY Garage Door (R-3.0)

R-3 (Also Provides a Radiant Barrier Benefit in Warmer Climates) Reflectix[®] Installation Instructions



- 1. Reflectix[®] Insulation
- 2. Garage Door Frame
- 3. Garage Door Panel

Tools Required: Safety Glasses Tape Measure Utility Knife/Scissors

Fasteners:

Reflectix Foil Tape, acrylic adhesive tape, doublesided tape, spray adhesive, screws or staples

Recommended Products: Reflective/Bubble/Reflective - Roll: BP24025 (24"x 25'), BP48025 (48"x 25')

- Measure the door panels of the garage.
- Simply cut the Reflectix[®] Reflective/Bubble/Bubble/Reflective product to this dimension.
- Attach the product to the door panels utilizing an acrylic adhesive tape, double-sided tape, spray adhesive, screws or staples.

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
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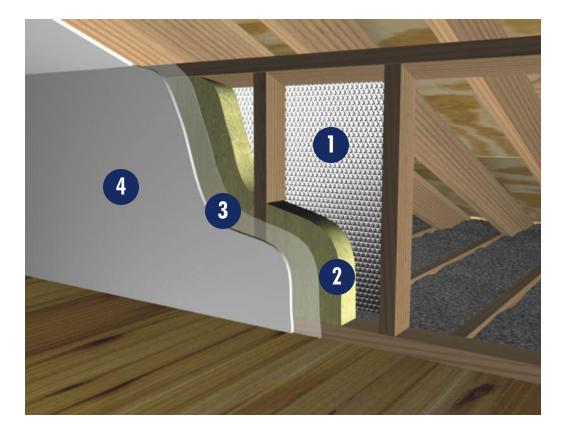
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Reflectix, Inc.



DIY Knee Wall (R-16, R-19)

Reflectix® Installation Instructions



- 1. Reflectix[®] Insulation
- 2. R-13 Fiberglass Batt
- 3. Vapor Barrier (Polyethylene) if Code Required
- 4. Interior Panel (Sheetrock)

Tools Required: Safety Glasses Staple Gun Tape Measure Utility Knife/Scissors

Recommended Products:

Reflective/Bubble/Bubble/Reflective - Roll: BP24025 (24"x 25') Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST16025 (16"x 25'), ST24025 (24"x 25')

Installation Instructions: (There are 2 methods with varying levels of benefit)

1. Product Installed in the Back of the Knee Wall Cavity - R-16 and a Radiant Reflector (with R-13 Fiberglass Batt)

- Construct Knee Wall per Building Code.
- Prior to installing fiberglass batts, measure the inside height of the knee wall cavity.
- Precut the Reflectix[®] to this measured length minus 1/2".
- Start at the inside top of the first cavity.
- If utilizing the Reflective/Bubble/Bubble/Reflective product, staple the tab of the product to the side (back corner) of the stud and continue downward stapling every 3" to 4" Repeat on opposite stud The plane created by the product should be parallel to the back side faces of the studs There should be a continuous 1/2" air gap across the bottom of the cavity.
- Install Fiberglass Batt per Manufacturer's Instructions.

- Install a Vapor Barrier on the inside of the Knee Wall if your Building Code dictates.
- Finish interior of Knee Wall.

2. Product Installed in the Back of the Knee Wall Cavity - R-19 and a Radiant Reflector (with R-13 Fiberglass Batt and 0.75" furring (on the back of the Knee Wall))

- Prior to placing the Knee Wall and nailing it to the floor and rafters, attach a 1"x 2" (nominal) furring strip to the back of each Knee Wall Stud.
- Install Reflectix[®] per instruction in Method #1 (above).

Review These Important Safety Guidelines Prior to Installation:

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- <u>ALWAYS</u> make sure work areas are well ventilated and well lighted.
- ALWAYS use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- ALWAYS be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
- Do not work in areas such as attics when temperatures are too hot.
- Visit our website at www.reflectixinc.com for additional product and installation information.

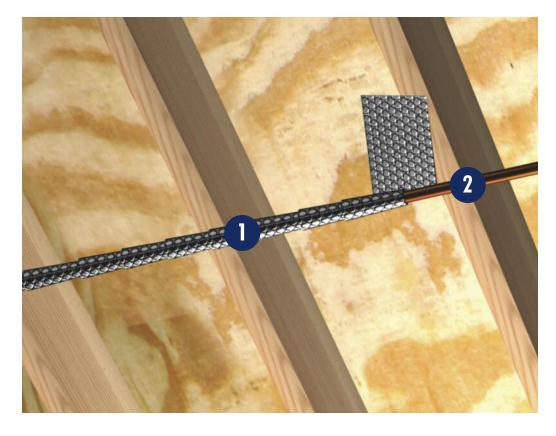
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Reflectix, Inc.



DIY Pipe Wrap (R-2.0) Reflectix[®] Installation Instructions



Reflectix[®] Insulation
 Water Pipe

Tools Required:

Safety Glasses Tape Measure Utility Knife/Scissors

Recommended Products:

Reflective/Bubble/Bubble/Reflective - Roll: BP24025 (24"x 25'), BP48025 (48"x 25') Spiral Pipe Wrap, Reflective/Bubble/Bubble/Reflective - Roll: SPW02025 (2"x 25'), SPW04025 (4"x 25'), SPW06025 (6"x 25')

Installation Instructions:

1. Spiral Pipe Wrap

- When utilizing the "SPW" product, spiral wrap the product overlapping a minimum of 1/2" inch. Securely tape the seams with a Reflectix[®] Foil Tape (goal is an air-tight, snug seam seal).
- When utilizing the "BP" product, cut into 2" or 4" wide strips. Then, follow the directions above for the "SPW" product.

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
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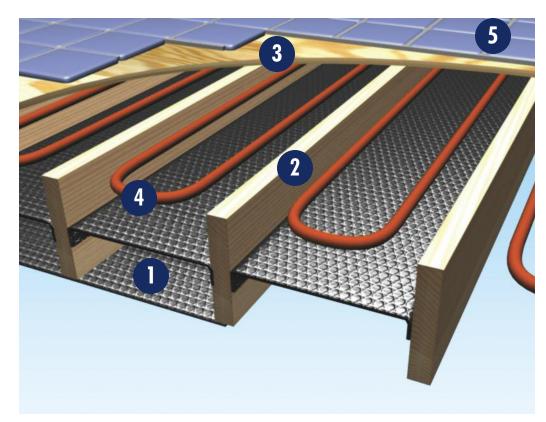
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Reflectix, Inc.



DIY Radiant Floor - Wood Joists (R-21)

Up to R-21 and a Radiant Reflector (Maximum Benefit Application) Reflectix[®] Installation Instructions



- 1. Reflectix[®] Insulation
- 2. Floor Joists
- 3. Existing Subfloor
- 4. Radiant Floor Tubing
- 5. New Floor

Tools Required:

Safety Glasses Staple Gun Tape Measure Utility Knife/Scissors

Recommended Products: Reflective/Bubble/Bubble/Reflective - Roll: BP48025 (48"x 25') Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST16025 (16"x 25')

Installation Instructions: (There are 5 methods with varying levels of benefit)

Note: For all methods, inspect the structural integrity of the sub-floor and make any needed repairs before installing Reflectix[®].

- 1. Product (Double Layer) Installed to Underside and Inside of Floor Joist R-21 and a Radiant Reflector
- Begin at one end of the house. Insert the first course of Reflectix[®] half way up into the joist cavity and staple (at approximately 3" to 4" intervals) the edge of the product to the side of the joist. The goal is to split the joist cavity into two approximately equal enclosed air spaces.
- Continue with the second course of product at one end of a joist cavity (after the first course has been installed) and secure the product "end" with staples to the sub-floor or band board. Proceed down the joists by stapling each edge (or middle of the Reflective/Bubble/Bubble/Reflective 48" wide product) to the face of each joist. Staple the product at intervals of approximately 3" to 4". Enclose the entire joist run(s).

- Seal seams with Reflectix[®] Foil Tape to create a vapor/moisture barrier.
- Repeat for each joist that contains the Radiant Floor System.

2. Product Installed to Underside of Floor Joist - R-16 and a Radiant Reflector

- Begin at one end of a joist cavity (that contains the Radiant Floor System) and install the product "end" with staples to the sub-floor or band board. Proceed down the joists by stapling each edge (or middle of the Reflective/Bubble/Reflective 48" wide product) to the face of each joist. Staple at intervals of approximately 3" to 4". Enclose the entire joist run(s).
- Seal seams with Reflectix[®] Foil Tape to create a vapor/moisture barrier.
- Repeat for each joist that contains the Radiant Floor System.

3. Product Installed Inside the Joist Cavity - Diminished R-Value / Radiant Reflector

- It is possible to install the Reflectix[®] inside the joist cavity (utilizing the Reflective/Bubble/Bubble/ Reflective, Staple Tab product).
- Start at one end of the house. Tuck the Reflectix $^{\scriptscriptstyle \mathbb{R}}$ into the joist cavity.
- Each edge of the product has a 3/4" staple tab. Determine the depth inside the cavity that the product is to be installed and attach the product with staples (through the tab) at approximately 3" to 4" intervals. Repeat on opposite joist.
- The less air space between the product and the sub-floor, the lower the R-Value (although reflectivity will be maintained).

Examples of benefits based on air space width above product:

- 0.5" air space = R-2.7
- 0.75" air space = R-4.6
- 3.5" air space = R-8.2

4. Product Installed Inside the Joist Cavity with Mass Insulation Below -Diminished R-Value / Radiant Reflector

- It is possible to install the Reflectix[®] inside the joist cavity above a Mass Insulation Batt.
- Utilize Reflective/Bubble/Bubble/Reflective, Staple Tab product Method specified in #3.
- Refer to R-Values in Method #3 to determine benefit gain in your system.

5. Product Installed Inside the Joist Cavity with Mass Insulation Above R-2.7 with a 0.5" Enclosed Air Space or R-4.6 with a 0.75" Enclosed Air Space

- Reflectix[®] can be installed below the Mass Insulation Batt.
- Refer to Method #3 for installation procedure, air space options and resulting R-Values.
- Finish with an interior panel below the Reflectix® (typical when finishing a basement).

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- <u>ALWAYS</u> be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
- Do not work in areas such as attics when temperatures are too hot.
- Visit our website at www.reflectixinc.com for additional product and installation information.

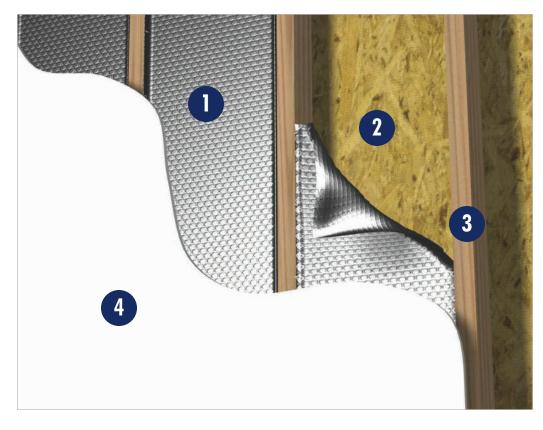
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Reflectix, Inc.



DIY Storage Building Reflectix[®] Installation Instructions



- 1. Reflectix[®] Product
- 2. Exterior Panel
- 3. 2"x 4" Stud
- 4. Interior Panel

Tools Required: Safety Glasses Staple Gun Tape Measure Utility Knife/Scissors

Recommended Products: Reflective/Bubble/Bubble/Reflective - Roll: BP24025 (24"x 25'), BP48025 (48"x 25') Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST16025 (16"x 25'), ST24025 (24"x 25') Radiant Barrier, Reflective/Woven Fabric/Reflective - Roll: RB4812550 (48"x125')



Installation Instructions:

- 1. Roof
- Refer to the Reflectix Webpage "DIY Attic".



2. Wall - Masonry R-3.7 to R-6.1

• Refer to the Reflectix® Webpage "DIY Wall - Masonry".



3. Wall - 2"x 4" R-6.1 (no fiberglass)

Determine if studs are 16" or 24" on center (This will determine whether Reflectix[®] 16" or 24" product is utilized).

• Place one corner edge of the Reflectix[®] in an upper corner of the stud cavity. At a point that splits the stud cavity; staple the product to the side of the stud (creating a 3/4" tab on the product).

- Proceed "down", stapling to the side of the stud every 2"- 3".
- Repeat procedure on opposite stud.
- The Goal: Create two approximately equal continuous 1 3/4" air spaces on each side of the Reflectix[®] Insulation.
- This application also provides a vapor/moisture barrier.
- Finish wall interior with a panel or sheathing (Product is not specified as an interior wall covering).



4. Wall - 2"x 4" R-14.0 Total Assembly

(R-3.9 and a Vapor Moisture Barrier for the Reflectix®)

Refer to the Reflectix[®] Webpage "DIY Wall - Exterior - 2"x 4"".

Review These Important Safety Guidelines Prior to Installation:

- <u>ALWAYS</u> check local building codes before installing Reflectix[®].
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- <u>ALWAYS</u> make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
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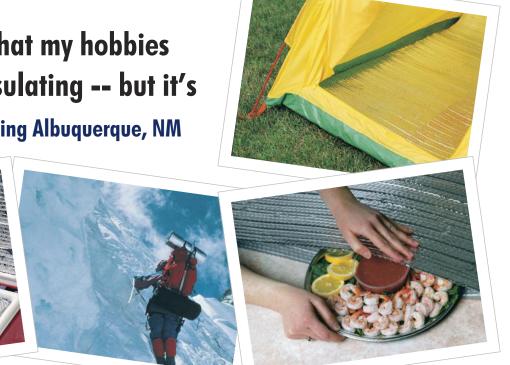
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Reflectix, Inc.



"My kids joke that my hobbies are recycling & insulating -- but it's no joke!" Ellen Boling Albuquerque, NM



DIY Unique Applications for Reflectix® Reflectix® Installation Instructions

Unique Applications:

Cooler Liner • Green House • Mini Storage Facilities • Mobile Home Crawl Space • Sauna • Metal Buildings • Mechanic Floor Mat • Hot Tubs • Poultry / Pole Barns • Sill Seal • Shed • Tent Pad • Pull Down Attic Stairs • Cargo Trailer • Light Reflector • Firewall Insulator • Custom Food Containers • RV Generator Box Cover • And Many, Many More!

- Cut and shape product per your application needs.
- Reflectix[®] can be seamed with Reflectix[®] Foil Tape. There are also a wide range of glues and adhesives that can be utilized in the forming or shaping of the product.
- Staples and nails or screws (with washers) are additional securing options.
- Maximum temperature that the product is designed to withstand is 180 degrees F.
- Let your imagination run free!

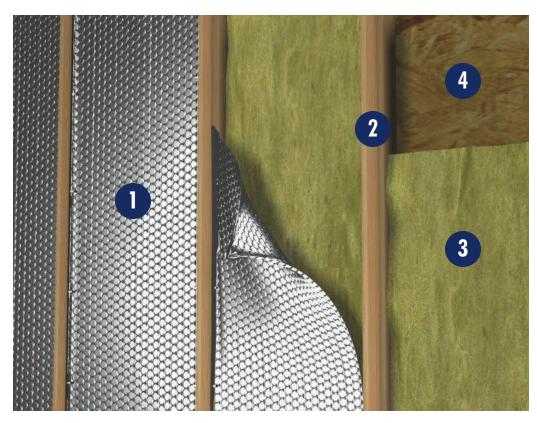
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Reflectix, Inc.



DIY Wall - Exterior 2"x 4" (Total R-14)

(R-3.9 and a Vapor/Moisture Barrier for the Reflectix®) Reflectix® Installation Instructions



- 1. Reflectix[®] Insulation
- 2. 2"x 4" Stud
- 3. Un-faced Fiberglass
- 4. Exterior Panel

Tools Required: Safety Glasses Staple Gun Tape Measure Utility Knife/Scissors

Recommended Products:

Reflective/Bubble/Bubble/Reflective - Roll: BP24025 (24"x 25') Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST16025 (16"x 25'), ST24025 (24"x 25')

- Install R-13, un-faced, per manufacturer's specifications.
- Place one corner edge of the Reflectix[®] in an upper corner of the stud cavity. Staple the product to the side of the stud (creating a 3/4" tab on the product and compressing into the fiberglass (3/4" as well)). The edge of the product should be flush with the forward corner of the stud.
- Proceed "down" stapling to the side of the stud every 2"- 3".
- Repeat procedure on opposite stud.
- The Goal: Create a continuous 3/4" air space between the product and the interior panel.
- Finish wall interior.

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
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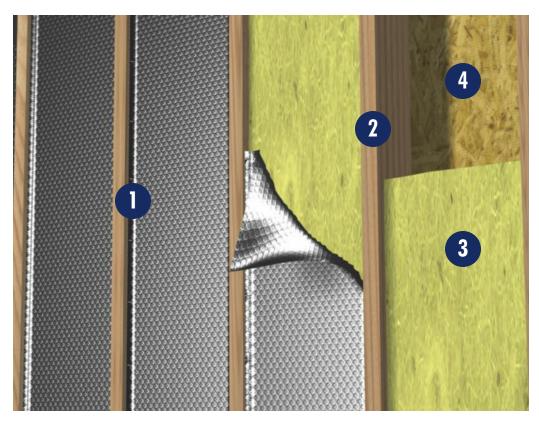
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Reflectix, Inc.



DIY Wall - Exterior 2"x 6" (Total R-21)

(R-3.9 and a Vapor/Moisture Barrier for the Reflectix®) Reflectix® Installation Instructions



- 1. Reflectix[®] Insulation
- 2. 2"x 6" Stud
- 3. Un-faced Fiberglass
- 4. Exterior Panel

Tools Required: Safety Glasses Staple Gun Tape Measure Utility Knife/Scissors

Recommended Products:

Reflective/Bubble/Bubble/Reflective - Roll: BP24025 (24"x 25') Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST16025 (16"x 25'), ST24025 (24"x 25')

- Install R-19, un-faced, per manufacturer's specifications.
- Place one corner edge of the Reflectix[®] in an upper corner of the stud cavity. Staple the product to the side of the stud (creating a 3/4" tab on the product and compressing into the fiberglass (3/4" as well)). The edge of the product should be flush with the forward corner of the stud.
- Proceed "down" stapling to the side of the stud every 2"- 3".
- Repeat procedure on opposite stud.
- The Goal: Create a continuous 3/4" air space between the product and the interior panel.
- Finish wall interior.

Review These Important Safety Guidelines Prior to Installation:

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
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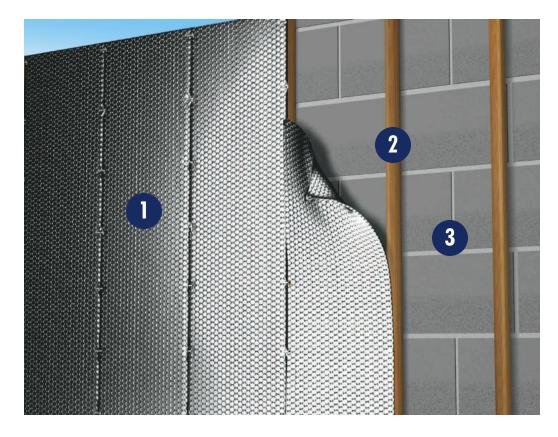
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Reflectix, Inc.



DIY Wall - Masonry (R-3.7, R-4.2, R-6.1)

Reflectix® Installation Instructions



1. Reflectix[®] Insulation

- 2. 1"x 2" (nominal) Furring Strip
- 3. Concrete Block Wall

Tools Required: Safety Glasses Staple Gun Tape Measure Utility Knife/Scissors

Recommended Products: Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST16025 (16"x 25')

Installation Instructions: (There are 3 "levels of benefit" options)

1. R-3.7 (1"x 2" nominal furring)

- Attach 1"x 2" (nominal) furring strips vertically at an interval of 16" on center to the masonry wall (with an adhesive or fastener that is specified for this application).
- Cut the Reflectix[®] Reflective/Bubble/Bubble/Reflective, Staple Tab product (using scissors or a utility knife) into lengths equal to the height of the wall (floor to ceiling).
- Staple the product to the face of the furring strip product seams should split on a furring strip.
- One air space is created between the Reflectix[®] and the masonry wall.
- Finish with interior panel (or sheetrock) of choice.

2. R-4.2 (2"x 2" nominal furring)

• Same as above except utilize 2"x 2" (nominal) furring.

3. R-6.1 (2"x 2" nominal furring)

- Same as above, except the product is not stapled to the face of the furring strip.
- Staple the product to the side of the furring strip at a depth of 3/4". The goal is to split the cavity (in two) into approximately equal air spaces.
- The two air spaces created are: one between the Reflectix[®] and the masonry wall, and the other between the new interior panel and the Reflectix[®].

Review These Important Safety Guidelines Prior to Installation:

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- <u>ALWAYS</u> be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
- Do not work in areas such as attics when temperatures are too hot.
- Visit our website at www.reflectixinc.com for additional product and installation information.

Please Note:

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Reflectix, Inc.



DIY Water Heater (R-4.5)

Reflectix® Installation Instructions



- 1. Reflectix[®] Insulation
- 2. Reflectix[®] Insulation Spacer Strips
- 3. Water Heater

Tools Required: Safety Glasses Tape Measure Utility Knife/Scissors

Additional Materials: Reflectix Foil Tape

Recommended Products: Reflective/Bubble/Bubble/Reflective - Roll: BP48025 (48"x 25')

- Cut three 2" wide strips of the Reflectix® Reflective/Bubble/Bubble/Reflective product at twice the circumference of the water heater (to be utilized as spacers).
- Attach the three strips (doubled) with Reflectix[®] Foil Tape around the circumference of the water heater (top, bottom and middle).
- Cut the Reflectix[®] at a width equal to the height of the water heater. Secondly, cut the length of the product equal to the circumference measured on the outside of the spacers plus 1".
- If the water heater is taller than 48", a section of product will need to be fashioned to make up the shortage. The seam between the 48" sheet and the "extension" piece will need to be taped with Reflectix® Foil Tape on both sides.
- Wrap the Reflectix[®] around the water heater and tape the vertical seam with Reflectix[®] Foil Tape.
- Trim product around pressure valve and cut on both sides of thermostat housing to create a flap type cover for easy access. Additionally, cut product away from the cover of the lower access panel.

- Note: Electric Water Heaters Only Cut a circular section of the product the size of the top of the water heater trim to accommodate wires, pipes and relief valve. Tape (foil) the circular product section to the top of the water heater. DO NOT USE PRODUCT ON TOP OF GAS WATER HEATERS.
- Note: Electric Water Heaters Check to insure heater is wired to meet local codes.
- Note: Gas Water Heaters Do not install the insulation below the bottom of the water heater tank -This area is to allow combustion air.
- Note: All Water Heaters Refer to owners or operating manual and follow any instructions provided for insulating the unit.

Review These Important Safety Guidelines Prior to Installation:

- ALWAYS check local building codes before installing Reflectix[®].
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- <u>ALWAYS</u> be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
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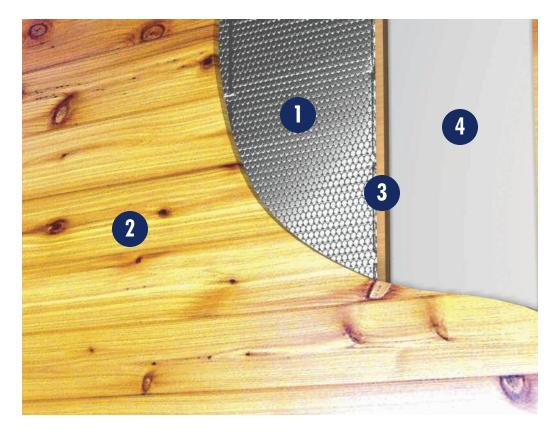
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Reflectix, Inc.



DIY Wine Room (R-3.7, R-4.2, R-6.1)

Reflectix® Installation Instructions



- 1. Reflectix[®] Insulation
- 2. Interior Panel
- 3. Furring Strip
- 4. Pre-existing Sheetrock

Tools Required: Safety Glasses Staple Gun Tape Measure Utility Knife/Scissors

Recommended Products:

Reflective/Bubble/Bubble/Reflective - Roll: BP24025 (24"x 25') Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST16025 (16"x 25'), ST24025 (24"x 25')

Installation Instructions:

1. R-3.7 (1"x 2" furring with 1 air space)

- Attach 1"x 2" (nominal) furring strips vertically directly over the 2 x 4 studs (behind the sheetrock) on the wall.
- Cut the Reflectix[®] (with scissors or a utility knife) into lengths equal to the height of the wall (floor to ceiling).
- Staple the product to the face of the furring strip product seams should split on a furring strip.
- One air space is created between the Reflectix[®] and the previously existing wall.
- Finish with interior panel (or sheetrock) of choice.

2. R-4.2 (2"x 2" furring with 1 air space)

• Same as above except utilize 2"x 2" (nominal) furring.

3. R-6.1 (2"x 2" furring with 2 air spaces)

- Attach 2"x 2" (nominal) furring strips vertically directly over the 2 x 4 studs (behind the sheetrock) on the wall.
- It is easiest to utilize the Staple Tab (16" or 24" depending on stud spacing) Reflectix[®] Reflective/ Bubble product, although the standard edge product will also provide the same level of benefit.
- Cut the Reflectix[®] Insulation (with scissors or a utility knife) into lengths equal to the height of the wall (floor to ceiling).
- Staple the product to the side of the furring strip at a dept of 3/4" the goal is to split the cavity (in two) into approximately equal air spaces.
- The two air spaces created are one between the Reflectix[®] Insulation and the previously existing wall and the other between the new interior panel and the Reflectix[®] Insulation.
- Finish with interior panel (or sheetrock) of choice.

Review These Important Safety Guidelines Prior to Installation:

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- <u>ALWAYS</u> be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
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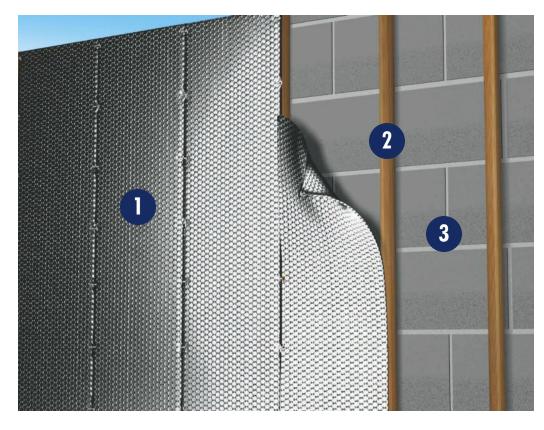
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Reflectix, Inc.



DIY Work Shop

Reflectix® Installation Instructions



- 1. Reflectix[®] Product
- 2. Furring Strip
- 3. Masonry Wall

Tools Required: Safety Glasses Staple Gun Tape Measure Utility Knife/Scissors

Recommended Products: Reflective/Bubble/Bubble/Reflective - Roll: BP24025 (24"x 25'), BP48025 (48"x 25') Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST16025 (16"x 25'), ST24025 (24"x 25') Radiant Barrier, Reflective/Woven Fabric/Reflective - Roll: RB4812550 (48"x125')



Installation Instructions:

- 1. Roof
- Refer to the Reflectix Webpage "DIY Attic".



2. Wall - Masonry R-3.7 to R-6.1

• Refer to the Reflectix® Webpage "DIY Wall - Masonry".



3. Wall - 2"x 4" R-6.1 (no fiberglass)

- Determine if studs are 16" or 24" on center (This will determine whether Reflectix[®] 16" or 24" product is utilized).
- Place one corner edge of the Reflectix[®] in an upper corner of the stud cavity. At a point that splits the stud cavity; staple the product to the side of the stud (creating a 3/4" tab on the product).
- Proceed "down", stapling to the side of the stud every 2"- 3".
- Repeat procedure on opposite stud.
- The Goal: Create two approximately equal continuous 1 3/4" air spaces on each side of the Reflectix[®] Insulation.
- This application also provides a vapor/moisture barrier.
- Finish wall interior with a panel or sheathing (Product is not specified as an interior wall covering).



4. Wall - 2"x 4" R-14.0 Total Assembly

(R-3.9 and a Vapor Moisture Barrier for the Reflectix®)

Refer to the Reflectix[®] Webpage "DIY Wall - Exterior - 2"x 4"".

Review These Important Safety Guidelines Prior to Installation:

- <u>ALWAYS</u> check local building codes before installing Reflectix[®].
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- <u>ALWAYS</u> make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- <u>ALWAYS</u> be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
- Do not work in areas such as attics when temperatures are too hot.
- Visit our website at www.reflectixinc.com for additional product and installation information.

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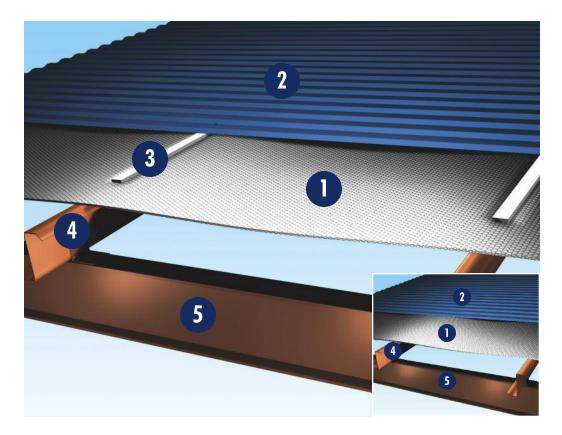
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Reflectix, Inc.



Metal Building / Roof / New

Reflectix® Installation Instructions



- 1. Reflectix[®] Insulation
- 2. Exterior Roof Panel
- 3. 3/4" Thermal Break
- 4. Purlin
- 5. Red Metal (Structural Frame)

Tools Required:

Safety Glasses Tape Measure Utility Knife Screw Gun

Recommended Products: Reflective/Bubble/Bubble/Reflective - Roll: BP48100 (48"x 100')

Open Interior with 3/4" Thermal Breaks R-10* Heat Flow Down (and a Radiant Barrier) R-4.5* Heat Flow Up

Open Interior without Thermal Breaks and a Nominal 3/4" Drape R-7.6* Heat Flow Down (and a Radiant Barrier) R-3.9* Heat Flow Up <u>Please Note</u>: In addition to the stated R-value, this application also provides a Radiant Barrier.

As a result, a 96% reduction of the radiant energy that ordinarily would be transmitted to the interior of the building is blocked.

Installation Instructions: (There are 2 options)

1. Open Interior with 3/4" Thermal Breaks

• After the red metal is erected, install the Reflectix[®] Reflective/Bubble/Bubble/Reflective product over the purlins by using 1/2" self-tapping metal screws and screwing the product to the purlins.

- Tape the seams with a Reflectix[®] Foil Tape (goal is an air-tight, snug seam seal).
- Install at least a 3/4" thermal break. If installing a standing seam roof, use clips with thermal breaks.
- Install roofing either by screwing corrugated metal screws through the thermal break and insulation to the purlin or install a standing seam roof.
- If an interior finish is to be installed, attach to the bottom of the purlins.

• This will create a 3/4" air space between the roofing and the insulation and an 8" air space between the insulation and the interior finish.

2. Open Interior without Thermal Breaks and a Nominal 3/4" Drape

• Per instructions above without the thermal break.

* Includes thermal resistance of 1.32 UP and 4.55 DOWN for interior air film.

Calculation Disclaimer: All values are calculated based on the "ASHRAE Handbook of Fundamentals" heat flow up and down.

Review These Important Safety Guidelines Prior to Installation:

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- <u>ALWAYS</u> be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
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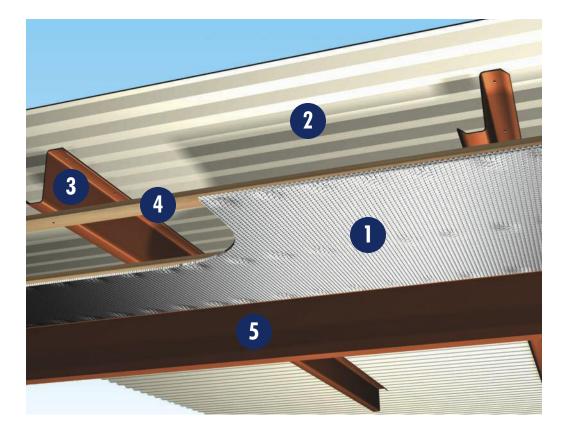
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Reflectix, Inc.



Metal Building / Roof / Retrofit

Reflectix® Installation Instructions



- 1. Reflectix® Insulation
- 2. Exterior Roof Panel
- 3. Purlin
- 4. 1"x 2" (Nominal) Furring Strip
- 5. Red Metal (Structural Frame)

Tools Required: Safety Glasses Tape Measure Utility Knife Screw Gun Staple Gun

Recommended Products: Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST48100 (48"x 100')

Open Interior with 1"x 2" Furring R-11* Heat Flow Down (and a Radiant Barrier)

R-4.4* Heat Flow Up

<u>Please Note</u>: In addition to the stated R-value, this application also provides a Radiant Barrier. As a result, a 96% reduction of the radiant energy that ordinarily would be transmitted to the interior of the building is blocked.

- Pre-installation inspection Check the roof area for clutter, water sprinklers, conduit and lights. Sprinkler systems are especially important. All water pipes must be below the Reflectix® to prevent the possibility of freezing in the winter. In many instances the Reflectix® product must be installed up near the roof deck.
- Install 1"x 2" furring strips on the bottom of and perpendicular to the Z purlins on 22" centers. Utilize 1 1/4" self-tapping sheet metal screws to secure the furring strips to the Z purlins.
- Butt the furring strips together and tape. Staple tape for reinforcement.

- Attach the product using 5/16" staples at approximately 4" intervals.
- Staple the edges of the Reflectix[®] Reflective/Bubble/Bubble/Reflective, Staple Tab product to the furring strips with the 3/4" tabs (so that they will overlap at the seam).
- Tape the seams with a Reflectix[®] Foil Tape (goal is an air-tight, snug seam seal).
- Staple product down the middle of the sheet into the furring strip above.

* Includes thermal resistance of 1.32 UP and 4.55 DOWN for interior air film.

Calculation Disclaimer: All values are calculated based on the "ASHRAE Handbook of Fundamentals" heat flow up and down.

Review These Important Safety Guidelines Prior to Installation:

- <u>ALWAYS</u> check local building codes before installing Reflectix[®].
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
- <u>ALWAYS</u> be careful when working with large pieces of Reflectix® on windy days.
- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
- Do not work in areas such as attics when temperatures are too hot.
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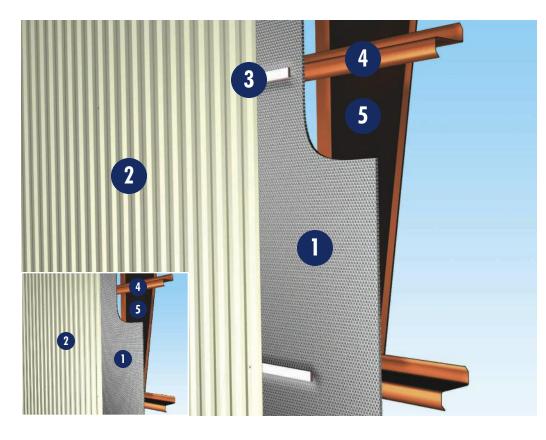
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Reflectix, Inc.



Metal Building / Wall / New

Reflectix® Installation Instructions



- 1. Reflectix[®] Insulation
- 2. Exterior Wall Panel
- 3. 3/4" Thermal Break
- 4. Girt
- 5. Red Metal (Structural Frame)

Tools Required:

Safety Glasses Tape Measure Utility Knife Screw Gun Staple Gun

Recommended Products: Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST48100 (48"x 100')

Metal Interior with a 3/4" Thermal Break • R-8.2* Heat Flow Horizontal Open Interior with a 3/4" Thermal Break • R-6.0* Heat Flow Horizontal Metal Interior with a Nominal 3/4" Drape in Product (No Thermal Break) • R-5.9* Heat Flow Horizontal Open Interior with a Nominal 3/4" Drape in Product (No Thermal Break) • R-4.7* Heat Flow Horizontal

Installation Instructions: (There are 2 options)

1. Installed with 3/4" Thermal Breaks

- Install Reflectix[®] Reflective/Bubble/Bubble/Reflective, Staple Tab product vertically, using 1/2" self tapping screws. This will secure the insulation to the exterior of the C or Z girts.
- Tape the seams with a Reflectix[®] Foil Tape (goal is an air-tight, snug seam seal).
- Install a 3/4" thermal break and attach corrugated metal exterior finish.
- If an interior finish is applied, install the interior panels to the interior face of the girts.

This will create a 3/4" air space between the exterior finish and the insulation and an 8" air space between the insulation and the interior finish.

2. Installed with a 3/4" Drape in Product (No Thermal Break)

• When installing the product, insure there is a drape (towards the interior) of at least 3/4" at the center of the cavity.

* Includes thermal resistance of 1.70 interior air film.

Calculation Disclaimer: All values are calculated based on the "ASHRAE Handbook of Fundamentals".

Review These Important Safety Guidelines Prior to Installation:

- <u>ALWAYS</u> check local building codes before installing Reflectix[®].
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
- <u>ALWAYS</u> use eye protection when operating a staple gun.
- <u>ALWAYS</u> use caution and common sense when using a staple gun. Be aware of where electrical wiring is located. Stapling into a wire can cause severe shock or death. <u>NEVER</u> staple into electrical wiring.
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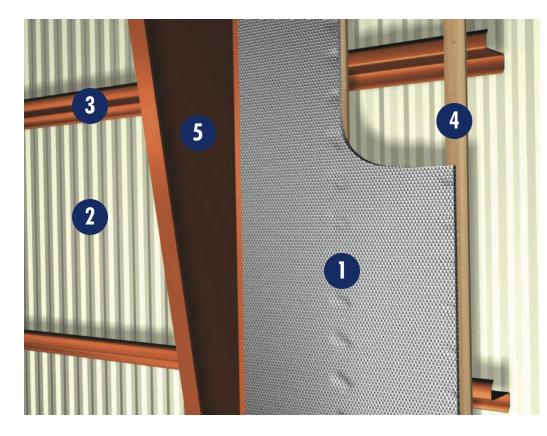
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Reflectix, Inc.



Metal Building / Wall / Retrofit

Reflectix® Installation Instructions



- 1. Reflectix[®] Insulation
- 2. Exterior Wall Panel
- 3. Girt
- 4. 1"x 2" (Nominal) Furring Strip
- 5. Red Metal (Structural Frame)

Tools Required: Safety Glasses Tape Measure Utility Knife Screw Gun

Staple Gun

Recommended Products: Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST48100 (48"x 100')

Open Interior R-4.5* Heat Flow Horizontal

- Install 1"x 2" furring strips on the inside and perpendicular to the Z girts on 22" centers. Utilize 1 1/4" self-tapping sheet metal screws to secure the furring strips to the Z girts.
- Butt the furring strips together and tape. Staple tape for reinforcement.
- Attach the product using 5/16" staples at approximately 4" intervals.
- Staple the edges of the Reflectix[®] Reflective/Bubble/Bubble/Reflective, Staple Tab product to the furring strips with the 3/4" tabs (so that they will overlap at the seam).
- Tape the seams with a Reflectix[®] Foil Tape (goal is an air-tight, snug seam seal).
- Staple product down the middle of the sheet into the furring strip parallel and centered.
- * Includes thermal resistance of 1.70 interior air film.

Calculation Disclaimer: All values are calculated based on the "ASHRAE Handbook of Fundamentals".

Review These Important Safety Guidelines Prior to Installation:

- ALWAYS check local building codes before installing Reflectix®.
- ALWAYS check the area you are insulating and make any needed repairs. Any worn wiring should be replaced before you begin installing Reflectix®.
- ALWAYS make sure work areas are well ventilated and well lighted.
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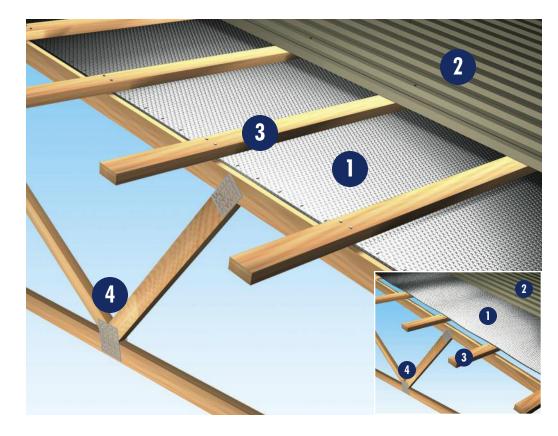
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Reflectix, Inc.



Post and Frame Building / Roof / New

Reflectix® Installation Instructions



- 1. Reflectix[®] Insulation
- 2. Exterior Roof Panel
- 3. Purlin
- 4. Truss

(Note: Applicable for both diagrams)

Tools Required:

Safety Glasses Tape Measure Utility Knife Staple Gun

Recommended Products: Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST48100 (48"x 100')

Below the Purlins Metal Interior • R-11 Heat Flow Down (and a Radiant Barrier) | R-5.1 Heat Flow Up Open Interior • R-9.0* Heat Flow Down (and a Radiant Barrier) | R-4.4* Heat Flow Up

Above the Purlins

Metal Interior • R-6.8 Heat Flow Down (and a Radiant Barrier) | R-6.0 Heat Flow Up Open Interior • R-6.4* Heat Flow Down (and a Radiant Barrier) | R-4.3* Heat Flow Up <u>Please Note</u>: In addition to the stated R-value, this application also provides a Radiant Barrier. As a result, a 96% reduction of the radiant energy that ordinarily would be transmitted to the interior of the building is blocked.

Installation Instructions: (There are 2 options)

1. Metal Roof with Product below Purlin (first illustration)

- After the trusses are set, run two purlins to make sure the trusses stay true.
- Attach the Reflective/Bubble, Staple Tab product to the first truss with at least 5/16" staples.

Temporarily nail a 2"x 4" block over the end of the product to prevent it from pulling away.

- Roll out the product across the top of the trusses, pull tight and staple at approximately 4" intervals.
- Run subsequent courses of the product with the 3/4" staple tabs overlapping at the seams.
- Tape the seams with a Reflectix[®] Foil Tape (goal is an air-tight, snug seam seal).
- Install purlins over the insulation. Nail or screw to the trusses through the product.
- Install the metal roof to the purlins.

2. Metal Roof with Product above Purlin (second illustration)

- Per instructions above except install Reflectix[®] Reflective/Bubble Insulation after installing the purlins.
- When installing product, insure that a minimum of a 3/4" drape (middle of cavity) is present.

* Includes thermal resistance of 1.32 UP and 4.55 DOWN for interior air film.

Calculation Disclaimer: All values are calculated based on the "ASHRAE Handbook of Fundamentals" heat flow up and down.

Review These Important Safety Guidelines Prior to Installation:

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- When installing Reflectix® on bright sunny days, it is best to wear sun glasses.
- Do not work in areas such as attics when temperatures are too hot.
- Visit our website at www.reflectixinc.com for additional product and installation information.

Please Note:

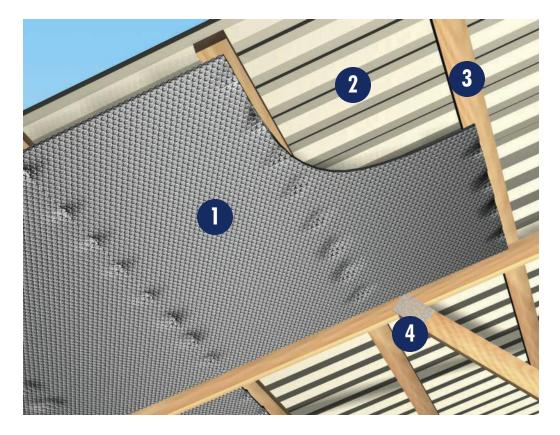
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Reflectix, Inc.



PF Bldg / Roof / Retro / Bottom of Purlins

Reflectix® Installation Instructions



- 1. Reflectix[®] Insulation
- 2. Exterior Roof Panel
- 3. Purlin
- 4. Truss

Tools Required: Safety Glasses Tape Measure Utility Knife Staple Gun

Recommended Products: Reflective/Bubble/Bubble/Reflective - Roll: BP48100 (48"x 100')

Bottom of the Purlins Metal Interior R-11 Heat Flow Down (and a Radiant Barrier) | R-5.1 Heat Flow Up Open Interior R-9.0* Heat Flow Down (and a Radiant Barrier) | R-4.4* Heat Flow Up <u>Please Note</u>: In addition to the stated R-value, this application also provides a Radiant Barrier. As a result, a 96% reduction of the radiant energy that ordinarily would be transmitted to the interior of the building is blocked.

- Inspect the roof area for clutter in buildings where there is no ceiling.
- Measure the distance between the trusses. Many times, the distance will be 4' or less. In some geographical areas, due to snow load, the distance will be as close as 2'.
- Cut pieces of the Reflectix[®] Reflective/Bubble/Bubble/Reflective product, 6" longer than the distance between the ridge pole and the bird's mouth.

- Staple the product to the bottom of the purlins with 5/16" staples, 3" to 4" apart. Turn the edges down and staple to the side of the top cord of the trusses.
- Staple the top of the insulation to the ridge pole and the bottom to the top plate at the wall.
- Tape any butt seams with Reflectix[®] Foil Tape. Make sure the tape is applied so that a proper bond occurs.

* Includes thermal resistance of 1.32 UP and 4.55 DOWN for interior air film.

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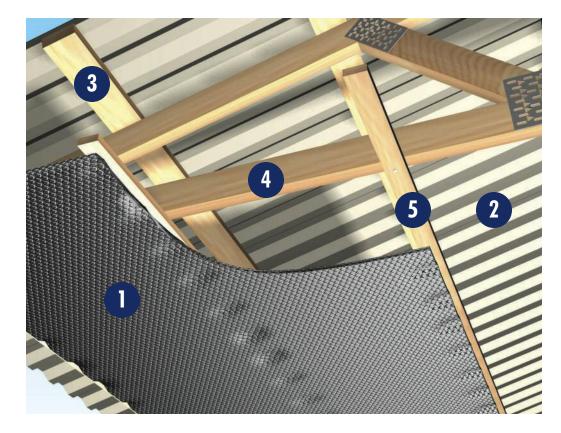
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Reflectix, Inc.



PF Bldg / Roof / Retro / Bottom of Trusses

Reflectix® Installation Instructions



- 1. Reflectix[®] Insulation
- 2. Exterior Roof Panel
- 3. Purlin
- 4. Truss
- 5. 1"x 2" (Nominal) Furring Strip

Tools Required:

Safety Glasses Tape Measure Utility Knife Staple Gun

Recommended Products:

Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST24100 (24"x 100'), ST48100 (48"x 100')

Bottom of the Trusses Open Interior R-10* Heat Flow Down (and a Radiant Barrier) | R-3.7* Heat Flow Up <u>Please Note</u>: In addition to the stated R-value, this application also provides a Radiant Barrier. As a result, a 96% reduction of the radiant energy that ordinarily would be transmitted to the interior of the building is blocked.

- Pre-installation inspection Check the roof area for clutter, water sprinklers, conduit and lights. Sprinkler systems are especially important. All water pipes must be below the Reflectix®
- Reflective/Bubble/Reflective, Staple Tab product to prevent the possibility of freezing in the winter.
- Nail 1"x 2" furring strips on the bottom of and perpendicular to the trusses on 22" centers. (Note: When truss spacing is 24" it is recommended to install the Reflectix[®] 24" or 48" product directly to the bottom cord of the truss.)

- Butt the furring strips together and tape. Staple tape for reinforcement.
- Attach the product using 5/16" staples at approximately 4" intervals.
- Staple the edges of the Reflectix[®] to the furring strips with the 3/4" tabs (so that they will overlap at the seam).
- Tape the seams with a Reflectix[®] Foil Tape (goal is an air-tight, snug seam seal).
- Tape any butt seams with Reflectix[®] Foil Tape, insure taped seam has a good full continuous bond.
- Staple product down the middle of the sheet into the furring strip above.

* Includes thermal resistance of 1.32 UP and 4.55 DOWN for interior air film.

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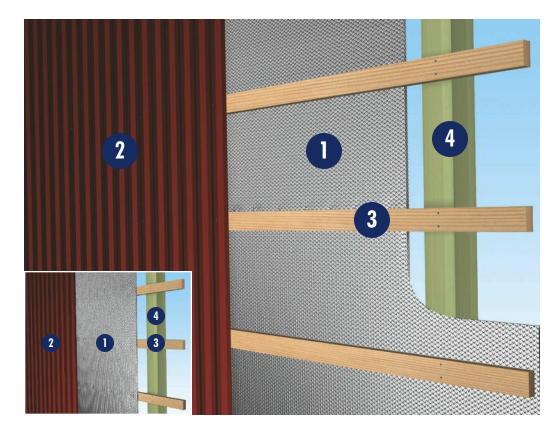
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Reflectix, Inc.



Post Frame Building / Wall / New Reflectix[®] Installation Instructions



- 1. Reflectix[®] Insulation
- 2. Exterior Wall Panel
- 3. Girt
- 4. Post

(Note: Applicable for both diagrams)

Tools Required:

Safety Glasses Tape Measure Utility Knife Staple Gun

Recommended Products: Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST48100 (48"x 100')

Inside the Girts

Metal Interior • R-6.3 Heat Flow Horizontal Open Interior • R-5.3* Heat Flow Horizontal Outside the Girts Metal Interior • R-5.5 Heat Flow Horizontal Open Interior • R-4.7* Heat Flow Horizontal

Installation Instructions: (There are 2 options)

1. Product Inside the Girts

- Attach the product using 5/16" staples at approximately 4" intervals.
- Staple the Reflectix® Reflective/Bubble/Bubble/Reflective, Staple Tab product to the outside of the top girt.
 - Staple the product to the inside of the remaining girts.
 - Tape the seams with a Reflectix[®] Foil Tape (goal is an air-tight, snug seam seal).

- For interior covering, attach 1"x 2" furring strips perpendicular to the girts through the insulation.
- Attach interior panel to the furring strips.

• This will provide a 1" (nominal) air space between the interior panel and the insulation and a 1 1/2" air space between the insulation and the outside panel.

2. Product Outside the Girts

- Attach the product using 5/16" staples at approximately 4" intervals.
- Staple the Reflectix[®] Reflective/Bubble/Bubble/Reflective, Staple Tab product to the outside of the top girt.
- Staple the product to the outside of the remaining girts. Insure there is a drape of at least 3/4" (towards the interior of the building) at the center of each cavity.
- Tape the seams with a Reflectix[®] Foil Tape (goal is an air-tight, snug seam seal).
- Attach outside panel.
- Attach interior panel to the inside of the girts (if specified).

* Includes thermal resistance of 1.70 interior air film.

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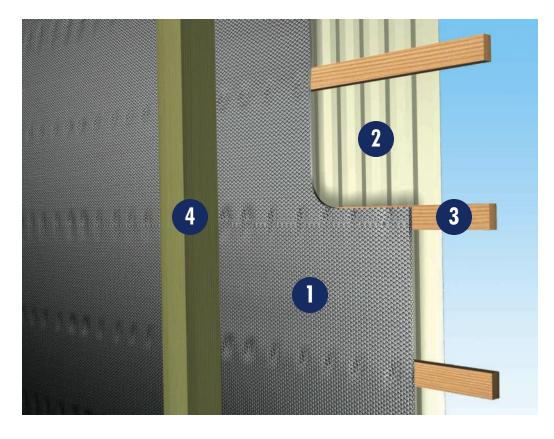
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Reflectix, Inc.



Post Frame Building / Wall / Retrofit

Reflectix® Installation Instructions



- 1. Reflectix[®] Insulation
- 2. Exterior Wall Panel
- 3. Girt
- 4. Post
- Tools Required: Safety Glasses Tape Measure Utility Knife Staple Gun

Recommended Products: Staple Tab, Reflective/Bubble/Bubble/Reflective - Roll: ST48100 (48"x 100')

Inside the Girts Metal Interior • R-6.3 Heat Flow Horizontal Open Interior • R-5.3* Heat Flow Horizontal

- The Reflectix® Reflective/Bubble/Bubble/Reflective, Staple Tab product can be installed either vertically or horizontally.
- Attach the product to the inside of the girts using 5/16" staples at approximately 4" intervals.
- Tape the seams with a Reflectix® Foil Tape (goal is an air-tight, snug seam seal).
- For interior covering, attach 1"x 2" furring strips perpendicular to the girts through the insulation.
- Attach interior panel to the furring strips.
- This will provide a 1" (nominal) air space between the interior panel and the insulation and a 1 1/2" air space between the insulation and the outside panel.

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