



LOW-E REFLECTIVE INSULATION

Reduces your carbon footprint



INSTALL GUIDE

LOW-E PRODUCTS



Product Specific Install Instructions

An Air Space is Needed for Efficiency, Please Allow the Insulation to Sag in Your Roof System.

DO NOT PULL TIGHT!!

Wall Application:

This material is designed to be installed from top to bottom, eave strut to the ground or rake angle to the ground, (perpendicular to the girts).

1. Start at one end of the wall you are about to sheet.
2. Make sure the material is square with the wall.
3. Using C-Clamps and a block of wood, secure the material to either the rake angle or eave strut.
4. Place double-sided adhesive tape around entire bottom perimeter of the building on the outside of the metal plate. Steadily, unroll the material to the ground, adjust roll so seams line up evenly then secure the bottom of the roll to the double-sided adhesive tape.
5. Go back to the top of the wall.

If Product has the Staple Flange Edge:

7. Bring the core edges tightly together with both flanges (no core in them) towards you.
8. Roll both flanges together securely keeping core edges tightly together.
9. Staple the flanges close to the core with a heavy-duty plier stapler every 2-3 inches.
10. Then put closure strips over insulation and cut off excess.
11. Be sure to leave enough overlap to ensure that the material will not pull apart after panels are installed.
12. Repeat Steps 5 thru 11 until you complete the the area to be insulated.



1. Peel paper from strip.



2. Fold back both tabs.



3. Stick adhesive side to non adhesive side.



4. Staple (Staple every 12" for best results)



If Product has the EZ-Seal Edge:

7. Fold back the insulated tab on the leading edge of the run you just finished.
8. Fold back the insulated tab on the trailing edge of the run you are about to install. It will contain double-sided adhesive tape.
9. Butt the folded edge of the new run tightly against the folded edge of the run which is already in place.
10. Repeat steps 2 and 3.
11. Peel off the release paper from the double-sided adhesive tape.

IF THE TAPE ISN'T STICKING BECAUSE OF MOISTURE IN THE AIR STAPLE EVERY 2-3 INCHES AND DON'T USE THE TAPE TAB TO SEAL THE EDGE.

12. Press the two insulated tabs tightly together making certain they are even. Place your thumb and fingers in the groove and use as a guide as you work down the wall. NOTE: For best appearance and easiest installation it is advisable to complete the process in steps 10 & 11 a foot or so at a time as you unroll down the wall.
13. Using a heavy-duty plier stapler, staple taped seam every 6 - 12 inches.
14. Steadily unroll the run down the wall, about a foot or so at a time, continue using the process described in steps 10 and 11.

If Product has Trimmed Edge:

7. Butt the edges of the insulation together.
8. Starting at one end of the edges, pull the paper backing off of the tape to apply the seam tape.
9. While applying the seam tape use the plastic squeegee (provided for you) to bond the insulation and the seam tape together. This is done by taking the plastic squeegee and firmly pressing down, running it the length of the tape. If done correctly, you will see that the seam tape blends in with the insulation. (If the squeegee is not used, the seam tape will not adhere itself to the insulation and the seams will possibly come loose over time.)
10. Apply small sections at a time, making sure that you are bonding the seam tape to the insulation.
11. Once you reach the end of your length, use a razor knife or a pair of scissors to cut the seam tape. Tearing the tape may stretch it and the adhesive; this puts an undue strain on the tape and will hamper its performance.
12. Place closure strips over the insulation.
13. Repeat steps 5 thru 11 until you complete the area to be insulated.

Install Instructions Continued

Installation Instructions Cont.

Roof Application: Start by using a double-sided adhesive tape around the roof perimeter or fold a small section of the material back over and secure to the eave with a fastener every 6-12 inches. ***It is important to have an airspace between the roof decking and the Low-E. This is achieved by draping the Low-E, allowing it to sag approx. 3/4 "-1"***

NOTE: If any defective or damaged material is encountered simply cut out the bad section and splice the remaining material together.

All splices made on wall sections must be placed behind the girts. This will conceal the splices and help to maintain a completely uniform appearance.

To do this, go to the girts immediately above and below the defective or damaged material and cut out from these lines. This will allow you to make your splice behind the girt.

Seams that are exposed to conditioned space must be taped with Low-E Seam tape. This product should not be left exposed in a ceiling that is 10' high or less. Consult your local building/fire codes to ensure that the proper material is used if this situation does occur. This product should not be overlapped. Never interfere with the design ventilation of the building when installing any form of insulation. Never expose any insulation to any fire source. Insulation should be stored in a protected area. Do not let insulation come in contact with wet or damp concrete at any time. Any tears or punctures in the insulation should be repaired by the appropriate Low-E Seam tape.

Splicing Low-E insulation:

Place double sided tape on last purlin covered by Low-E insulation to secure end. Trim end where it is concealed by purlin. Place double sided tape on the top of the Low-E insulation and lay new section on the top of the existing one. **Procedure for making a splice:** 1. Cut a piece from another roll a little larger than the area to be removed. Overlay the ends of the two pieces to be spliced together. 2. Cut through the two pieces using a straight edge, to create a common edge. 3. Butt the two edges tight together. 4. Tape the seam on both sides using the manufacturer provided aluminum seam tape. **WHEN APPLYING LOW-E SEAM TAPE BE SURE TO CUT THE TAPE. DO NOT RIP OR TEAR. RIPPING OR TEARING CAN NEGATIVELY AFFECT THE ADHESIVE. WHEN APPLYING LOW-E SEAM TAPE, BE SURE TO USE THE MANUFACTURER SUPPLIED SQUEEGEE TO ENSURE THE TAPE IS PROPERLY ADHERED. WHEN USING TAPE TO MAKE REPAIRS RUN TAPE PARALLEL WITH THE INSULATION. ***NEVER RUN TAPE AT AN ANGLE.** NOTE: LOW-E seam tape can also be used as a patch material to cover up and repair any cracks or tears in the LOW-E. Please refer to the above instructions for the application of LOW-E seam tape. NOTE: When installing above a framed opening i.e. (a dock door) be sure to wrap the material around the door header to the inside of the building. The door installers can then trim any excess LOW-E out of the way. This procedure will ensure that there will not be a gap in the insulation after the door is installed.

NOTE: If any defective or damaged material is encountered, simply cut out the bad section and splice the remaining material together. Local building codes shall be followed to ensure proper installation. The thermal performance of Low-E Insulation in these installations are based on the maintenance of a totally enclosed air space adjacent to the low emittance surface(s). Thermal values for this product are defined by typical installations and are obtained in accordance to accepted test methods and are subject to manufacturing variations. They are supplied as a technical service and are subject to change without notice. These products should never have a core edge exposed. Seams that are exposed to conditioned space must be taped with Low-E Seam tape. No insulation products should be left exposed in a ceiling that is 10' high or less. Add Gypsum board or another type of fire wall. Consult your local building/fire codes to ensure that the proper material is used if this situation does occur. These products should not be overlapped. Never interfere with the design ventilation of the building when installing any form of insulation. Never expose any insulation to any fire source. Insulation shall be stored in a protected area. Do not let insulation come in contact with wet or damp concrete at any time.

****IT IS EXTREMELY IMPORTANT TO LINE THE SEAMS UP STRAIGHT IN
ALL APPLICATIONS BEFORE YOU SECURE THE INSULATION.
PLEASE DO NOT WALK ON INSULATION WHEN IT IS CUT BEFORE INSTALLATION.**

These products should never have a core edge exposed. Seams that are exposed to conditioned space must be taped with Low-E Seam tape.

Other Important Information

FLAMMABILITY TESTING & MANUFACTURER'S WARNING

All ESP Low-E® Insulations have been tested in accordance with either the ASTM E-84 Surface Burning Characteristics for Building Materials or the NFPA 286 Full Scale Room Burn Test. The majority of ESP Low-E® Insulation product line meet the criteria in the Building Codes to be used in exposed building applications. Always consult your local building codes and officials before installing Low-E insulation if there are any questions concerning the building application. If there is any question concerning which product to use in your specific application, call 800-289-5693 and our representatives will be happy to assist you in choosing the correct product for your building.

MANUFACTURER'S WARNING: It is not recommended that these products be left exposed in walls and ceilings where ceiling height is less than 10 feet. If the product is to be installed in a building in the walls and ceiling with a ceiling height less than 10 feet, the wall should be covered with an approved thermal barrier (ex. gypsum board). Always consult your local building codes or officials before installing.

ASTM STANDARD TEST METHOD FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS:

This standard is used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled laboratory conditions. ESP Low-E® products are tested within the strict standard of these test methods. This test method is not necessarily representative of the manner in which the ESP Low-E® products are installed in a typical field installation. The numerical ratings on all ESP Low-E® insulation products or any other materials are not intended to reflect hazards under actual fire conditions. ESP strives to have tests done as close as possible to the actual install methods.

Warning:

Aluminum is an electrical conductor. Please use caution when working around electrical sources including overhead power lines.

NOTE: Rolls of insulation shall be packaged in a polyethylene wrapping. Insulation shall be stored in a dry protected area. Do not allow insulation to come in contact with fresh concrete at any time. Any tears or punctures in the foil shall be repaired with aluminum tape. All seams that require taping must be taped with ESP approved tape.

PRODUCT GUARANTEE & MANUFACTURER'S WARRANTY

Product Guarantee

ESP Low-E® Insulation products are guaranteed against defects in material and workmanship for 20 years. Blister or bubbles in product surface will not affect performance. Product thickness for products with foil on both sides may vary +/- 10%. All other products may vary +/- 20%.

Defective Material

The following criteria may be considered a defect; (1.) 1 inch wide or more of foil delamination on the edges for more than 15 feet of the roll. (2.) More than 1 inch of core showing on 20 feet or more of a roll. (3.) Large areas (more than 1 square foot) of delaminated foil.

Corrective Instructions

Occasionally there may be imperfections in product that may affect appearance but not performance. In the event this is encountered, the following solutions are advised; (1.) If there is core showing on one side, either tape the seam on that side when installed or install product with the core side in. (2.) If there is an edge that is delaminated, either tape the seam on that side when installed or install product with delaminated edge in. (3.) If there are areas that have a delamination that cannot be installed without correcting this defect, the following may be done with an iron; set the iron about half to three quarters temperature setting. Make a small slit with a razor knife in the center of the delamination and carefully, with light pressure, iron the foil towards the slit, allowing trapped air to escape. When finished, cover the slit with a small piece of Low-E tape.

Return Policy

(1.) It is our opinion that our Distributors should handle customer problems directly and ESP in turn will issue a credit or replace materials to the Distributor. The Distributor must make available to ESP a copy of the product label or the information on the label [lot#, initials, product description], samples of the defect, or the roll of material. Upon inspection of the defect, ESP will credit or replace defective material at ESP's discretion. If a section of a roll is bad, remove the bad area and use the rest of the roll. Retain the bad section and label information for credit. If label is not available, return the bad section. (2.) All labels on the product must be saved for verification. If label is not sent back with completed filled out complaint form, the complaint will not be acknowledged. If everything is in order on the complaint form and sheets and ESP requests the return of the roll, ESP will pay the shipping, however, **no material is to be returned without ESP approval.** (3.) If the customer elects to keep all the product that is considered seconds, and the complaint forms and labels are sent back, ESP will credit the customer for the difference in first quality and second quality pricing. (4.) If the product is shipped out of the continental United States, the representative is totally responsible for all replacement costs and shipping charges of the material.

DISCLAIMER


R-values in this manual are achieved with ESP Low-E® Products having foil facings with .03 emittance on both sides. Low-E products with a white foil facing will have a lower R-value. Please consult your manufacturer's representative for the thermal performance of these products.



The Low-E Advantages



**Stops Heat - Deadens Sound
Does Not Absorb Moisture**

- * Low-E products offer Class A, Class 1 fire ratings.
- * Low-E provides a continuous thermal break around purlins, girts, studs and joists.
- * Low-E is so thin that oil canning of your metal roofing/siding is never a problem.
- * Low-E is an excellent vapor barrier and helps control condensation.
- * Low-E's low emittance surface keeps buildings cool in summer and warm in winter.
- * Low-E's strong lightweight rolls make installation a breeze.
- * Low-E doesn't easily tear even in windy conditions. 
- * Low-E can be installed alone and outperform up to 3"- 4" of fiberglass.
- * Low-E can be combined with fiberglass for higher R-Value code requirements.
- * Low-E rolls are available in various widths and thicknesses with or without a staple flange.
- * Low-E closed micro-cell foam seals tightly around fasteners.
- * Low-E doesn't wick moisture into the core of the insulation.
- * Low-E deadens sound.
- * Low-E is bird, mice and insect resistant. 

Low-E, The #1 Choice of Quality Builders