



# Housewrap Insulation

## BENEFITS OF LOW-E HOUSEWRAP INSULATION:

In a space thinner than a pancake, you can dramatically improve a home's energy efficiency. Using the same reflective technology that protects NASA astronauts from the sun's searing heat, ESP Low-E® Insulating Housewrap blocks 97% of radiant heat transfer through the walls.



### Siding Replacement

Energy efficiency and lowering heating and cooling costs are top priorities for American homeowners. Home improvement contractors can meet that demand with ESP Low-E® Housewrap. With ESP Low-E®, an ordinary residing job whether wood, vinyl, steel or fiber cement - becomes an energy-saving improvement.

### New Construction

You can meet tough standards for more energy-efficient construction without dramatically increasing your cost. Use conventional two-by-four framing and insulation but upgrade to ESP Low-E® Insulating Housewrap for performance comparable to expensive six-inch wall systems.



**House protected by ESP Low-E<sup>®</sup> Reflective Insulation Housewrap**



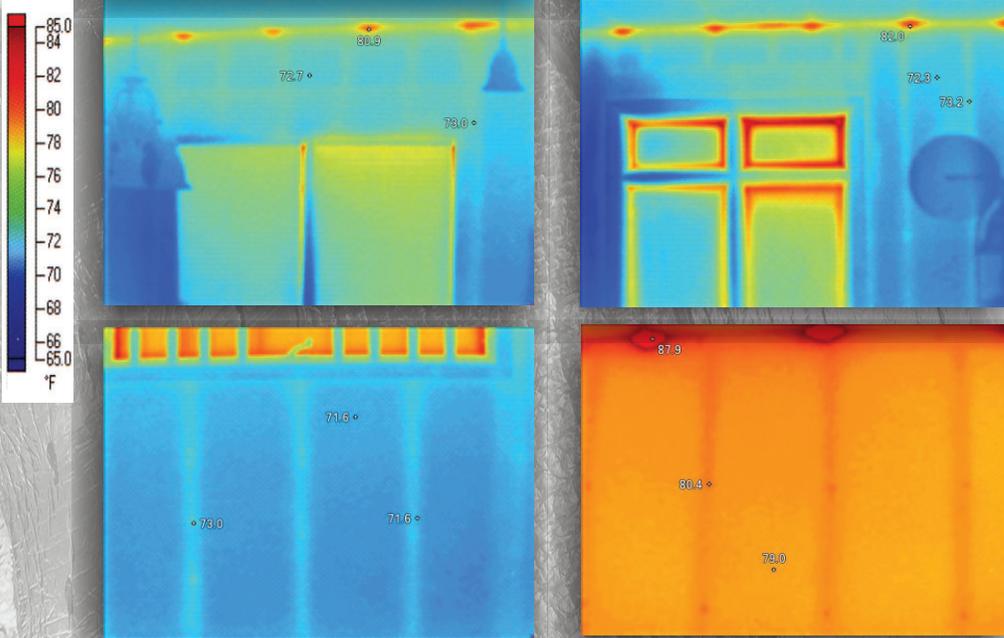
**House with conventional housewrap**



Two Illinois homes built only 25 yards apart are virtually identical with one key difference. One was built with ESP Low-E Reflective Insulation Housewrap, the other with traditional housewrap.

On an 85° summer day, the north facing interior walls of both homes were photographed from inside with a heat measuring infrared camera. The images showed that very little summer heat penetrated either of the properly insulated walls.

The walls on the south side, where the sun shone directly on the house walls, told a different story. The wall protected by ESP Low-E all but stopped radiant heat transfer. The wall with traditional housewrap showed dramatic heat gain, absorbing heat and radiating it through the fiberglass insulation.



PRODUCT CODES: 4PFNS, 5PFNS, 6PFNS  
 PRODUCT DIMENSIONS & DESCRIPTION:  
 Single-sided scrimmed aluminum foil laminated to polyethylene foam perforated (1/4" nominal thickness)  
 WIDTH: 4', 5', 6' with overlapping foil flange  
 LENGTH: 125', 100', 100'  
 R-VALUE (CORE RESISTANCE): R-1.03  
 SYSTEM R-VALUE: R-4\*  
 R-VALUE: R-3 (product & reflective airspace only)  
 PERM RATING: ASTM E-96 - 7 or 40 grams/(day-m<sup>2</sup>)  
 WATER RESISTANCE: ASTM D779 - 9hrs  
 FLAME AND SMOKE: ASTM E-84  
 FLAME SPREAD: Less than 25,  
 SMOKE DEVELOPED: Less than 50  
 FULL SCALE FIRE TEST (walls only): NFPA-286 Passed  
 \*Horizontal heat flow: vinyl siding with 0.375 inch reflective airspace, ESP Low-E<sup>®</sup> Housewrap attached to nominal thickness 1/2 inch wood sheathing. Report from Geo Science available upon request.  
 Specific R-Values for specific applications can be obtained from Install Guide at [www.low-e.com](http://www.low-e.com) or by contacting ESP, Inc.

ESP Low-E<sup>®</sup> Reflective Insulation Housewrap combines the benefits of a weather-resistant barrier with increased thermal performance. It's light, safe and easy to cut with a utility knife. It can be fastened with staples like an ordinary house wrap and stands up to rough handling.

**CAUTION:** Aluminum is an electrical conductor. Please use caution when working around electrical sources including overhead power lines. Carefully inspect electrical junction boxes and check for frayed wires before beginning installation.

**WARNING:** Although ESP Low-E<sup>®</sup> Insulation products are all fire tested to ASTM and/or NFPA standards; it is recommended that they or any insulation material should not be exposed to open flame or other ignition sources of sufficient intensity during shipment, storage or installation.



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**ICC-ES Evaluation Report ESR-3079**

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