



RESIDING



PUT *STYROFOAM*

BRAND INSULATION

UNDER YOUR

NEW SIDING



Building Materials

If you think you only need to reside, you may be missing an important opportunity to add energy-savings at the same time.



Adding STYROFOAM brand insulation during the residing process is quick and easy.



Now your home looks nicer, and it has the extra energy-savings and comfort value of STYROFOAM brand insulation, as well.



When you include
STYROFOAM* brand
insulation, the beauty of your
new residing job will be much
more than just skin deep.

Because you'll make your
home more comfortable and
energy efficient with North
America's number one brand
of rigid foam insulation.

STYROFOAM brand
insulation has a proven track
record of 21 billion board
feet installed in millions of
homes across
North America for
over 50 years.

Put STYROFOAM Brand Insulation Under Your New Siding.

And Put The Savings In Your Pocket

Now that you are considering residing your home, there is no better time to consider upgrading your insulation.

STYROFOAM brand insulation under your new siding can help cut your heating and cooling bills now, and help save money from now on.

Insulation That Really Pays

Money you save on home energy costs can pay for your STYROFOAM brand insulation.¹ After that, the money stays in your pocket. And

STYROFOAM brand insulation is insurance against the rising cost of energy. Every time energy costs go up, you save more.

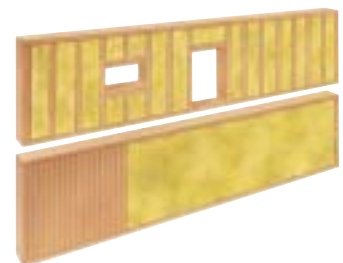
Increase The Resale Value of Your Home

Adding quality insulation can add significantly to the resale value of your house. Potentially, it could mean thousands of dollars more in your pocket when you sell. That's because home buyers are growing more energy-conscious every year. They're willing to spend more for a home that delivers energy savings year after year.



Already Have Some Insulation In Your Walls?

Then, STYROFOAM brand insulation under your new siding can add extra insulating value – and extra energy savings – to the fibrous glass, cellulose, or mineral wool you may already have between the studs.



STYROFOAM brand insulation covers the whole wall surface, not just the area between the studs. It provides important insulation over the wood framing, which can account for up to 25 percent of the wall area, and 15 to 42 percent of your home's wall heat loss/gain, depending upon the amount of existing insulation in your walls.

¹Savings vary. Find out why in the Seller's Fact Sheet on R-values. Higher R-values mean greater insulating power.

STYROFOAM Brand Insulation Provides A Solid, Flat Base For Siding And It Insulates.

More Insulating Power

STYROFOAM brand insulation is not like most other board-type rigid foam insulation products on the market. It provides a smooth, solid base for your new siding. And it adds significant long-term R-value – insulating power – to your walls.

Reflective Air Space Claims May Be Misleading

Investigate before you accept manufacturers' claims that foil-faced insulations provide extra insulation value because of the reflective air space formed when the products are covered with siding. The calculation of insulation value using this method does not conform to the criteria set up by the American Society of Heating, Refrigerating, & Air Conditioning Engineers (ASHRAE). It does not have parallel sides and does not contain a dead air space.

Therefore, it should not be given the high R-value shown in the ASHRAE handbook for conforming reflective air spaces, unless the manufacturer has tested the product under air space configurations and conditions which will be present when the product is installed as recommended by the seller. If the air space between the foil facing and siding is not parallel,

smooth and airtight, it does not meet accepted criteria for additional R-value. Ask the manufacturer that is claiming R-value for the foil-faced air space to show proof that the siding system you are using adds R-value.

The Dow Chemical Company has conducted large-scale calibrated hot box testing of 9 x 12-foot wall panels to determine the insulation value of various air spaces. And the tests reveal that the reflectivity of foil-faced underlayment products adds only 0.17 to a wall's R-value.² This lower-than-ASHRAE value for the reflective air space behind aluminum siding is caused by air leakage and by the beveled shape of the space. In comparison, an inch of STYROFOAM brand insulation adds an R-value of 5.

Is it possible to form a reflective space that **does** provide the ASHRAE value? Yes, but it involves furring-out

over the reflective underlayment, residing with only smooth, panel-type products such as plywood, and carefully sealing all edges against air leakage. So the extra cost of **reflective** R-value is far more expensive than the cost of **foam** R-value.

Conclusion: In most cases, residing contractors and homeowners should question claims for extra insulation value due to reflectivity. They should stay, instead, with the proven answer: warranted STYROFOAM brand insulation.

Insulates Better, Lasts Longer

Most insulating materials are susceptible to the effects of moisture. Just as wet gloves won't keep your hands warm, wet insulation won't keep your house warm.

²Aluminum siding was applied over sheathing to create a beveled air space. A comparison of foil-faced sheathing (emittance = .03) to that same sheathing painted black (emittance = .40) indicated that the reflective facing added only R-.17 to the wall assembly when tested at 40°F mean temperature.

³ASTM C 518, °F • ft² • h/Btu

R-values ³ STYROFOAM brand insulation					
Thickness	.5"	.75"	1"	1.5"	2"
75°F mean temperature	2.8	3.8	5.0	7.5	10.0

STYROFOAM brand insulation is virtually unaffected by moisture. It keeps working year after year. That's why it's used on some of the world's toughest insulation jobs, such as huge cold storage buildings and under highways and airport runways in Alaska and Canada. You can depend on STYROFOAM brand insulation to keep working for the life of your home.

Infiltrating Air Reduced, Too

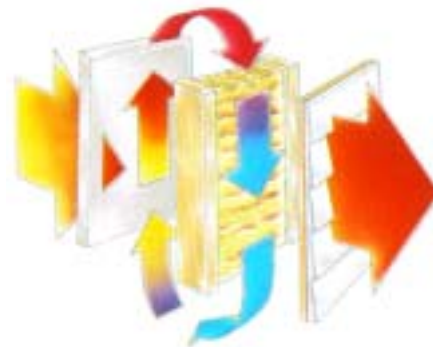
On a windy day, air infiltration can cause significant heat loss in a home, according to the U.S. Department of Energy. STYROFOAM brand insulation covers cracks in your old siding and around windows and doors. It provides an effective barrier over the entire wall.

Also helping reduce heat loss is the unique tongue-and-groove design of STYROFOAM brand insulation on thicknesses of 3/4" or greater. When butted together, the boards help block both heat flow and air flow.

Less Heating/Cooling Loss From Convection

During the heating season, convection currents can rob your home of heat. STYROFOAM brand insulation can reduce convection. Warm air on the interior side of the wall cavity tends to rise, and the cold air on the exterior side tends to fall. This moving air forms a convective loop that transfers heat to the

outside. STYROFOAM brand insulation on the exterior side of the wall helps warm the cavity and thus reduces the looping effect. This helps cut heat loss. The same warming action

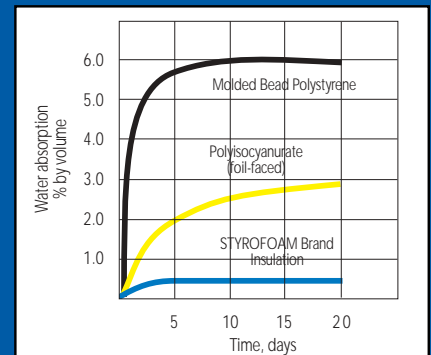


Without STYROFOAM brand insulation on the exterior side of the wall, convective looping occurs in the stud wall cavity, creating heat loss.

also reduces the potential for condensation in the walls.

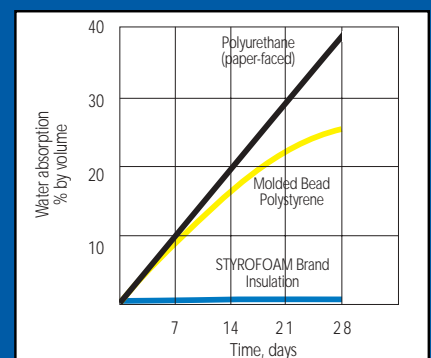
During the cooling season, this convective looping action reverses, carrying unwanted outside heat to the interior. Again, STYROFOAM brand insulation reduces the looping effect by keeping the cavity cooler and helps cut cooling costs.

Water Absorption in Water Submersion Test (Modified ASTM D 2842)



Foam insulations were submerged in water for 21 days while being measured for moisture content. Results show STYROFOAM brand insulation had much less moisture content than other foam insulations.

Water Absorption in Water Vapor Diffusion Test (Modified Swiss Standard SIA 279)



Here, insulating foams underwent temperature and vapor pressure gradients for 28 days. This is one of the most common ways moisture gets absorbed – and again, STYROFOAM brand insulation outperformed the competition.



Insist On The Distinctive Blue Foam Board With The Double Diamond. There Is A Difference.

Limited Thermal Warranty

Not all rigid foam insulation is STYROFOAM brand insulation. Be sure you're getting the real thing.

The Dow Chemical Company developed STYROFOAM brand plastic foam in the 1930's and introduced it in construction applications in the 1940's. It was the first product of its kind. And it's still the best.

The distinctive Blue¹ color of STYROFOAM brand insulation, along with the double diamond on every board, is your assurance of insulating power that will last the life of your home. And, it's the only insulation

carrying a 15-year limited thermal warranty guaranteeing it will not vary more than 10 percent from its published R-value.

Building Code Approval

STYROFOAM brand non-structural insulating sheathing has been reviewed by the U.S. federal government and by all three model building codes. The following code organizations have issued approvals:

BOCA National Building Code

SBCCI Standard Building Code

ICBO Uniform Building Code



For a copy of our limited warranty and R-value fact sheets, ask your seller of STYROFOAM brand insulation. Or call us at 1-866-583-BLUE (2583).

Depending on your geographical location, STYROFOAM brand insulation is available in either 4' x 8' or 2' x 8' sheets.

¹The color Blue is a Trademark of The Dow Chemical Company



Important Facts For Homeowners About STYROFOAM Brand Insulation.

- Reduces heat loss from air infiltration
- Helps cut heating and cooling bills when used under your new siding
- Adds extra energy savings when used in combination with other insulation
- 15-year limited thermal warranty
- Can improve resale value of your home
- Virtually unaffected by moisture
- Won't sag, settle, or mildew like batts; remains stable for the life of your home
- Accepted by BOCA, SBCCI and ICBO building codes
- Used successfully in millions of homes
- The best proven value for your insulation dollar
- STYROFOAM brand insulation is CFC-free**

Profile Of Features/Benefits Of STYROFOAM Brand Insulation

- Feature:** Product performance.
Benefit: Covers uninsulated framing and reduces air infiltration through cracks in your old siding and around windows and doors.
- Feature:** Long-term R-value.
Benefit: Predictable R-value, lower cost of operation to homeowner. 15-year limited thermal performance warranty.
- Feature:** Name recognition.
Benefit: STYROFOAM brand insulation and Dow recognized around the world for quality.
- Feature:** Moisture resistance.
Benefit: Resists moisture penetration through walls.
- Feature:** Compressive strength.
Benefit: Damage resistant during construction sequence. Provides smooth, flat surface under siding.
- Feature:** Product mix.
Benefit: Widest variety of sizes in the industry.
- Feature:** Uniform product.
Benefit: Consistent, predictable size, same thermal properties throughout.
- Feature:** Multiple plants.
Benefit: Over 50 years of proven manufacturing experience. Plants strategically located nationwide; assurance of availability of product.
- Feature:** Service.
Benefit: Largest network of experienced sellers, manufacturers' representatives available for consultation during design as well as construction.
- Feature:** Sales and technical support.
Benefit: Dow provides a national network of construction expertise second to none.

**STYROFOAM brand insulation products are manufactured with HCFC blowing agents which have ozone depletion potentials that are 93.5% less than standard CFC blowing agents.



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For sales information: 1-800-232-2436

For technical information: 1-866-583-BLUE (2583)

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COMBUSTIBLE: Protect from high heat sources. For more information, consult MSDS and/or call Dow (1-866-583-2583). In an emergency, call (1-989-636-4400). Local building codes may require a protective or thermal barrier. Contact your local building inspector for more information.

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Building Materials
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Improved daily.

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