STYROFOAM™ Brand SPF Insulation is a professionally applied two-component polyurethane foam insulation that, when properly applied, creates a seamless, monolithic barrier for protection against water and air. The SPF blend successfully incorporates a zero ozone-depleting blowing agent in the manufacturing process.

Available in two formulas (MX 2030 and MX 2045) for both new and retrofit applications, STYROFOAM™ Brand Spray Polyurethane Foam (SPF) Insulation is created from a unique polyol technology, which offers high foam yield and wide processing latitude. The closed-cell, 2 pcf foam expands during application to fill cavities, cracks and crevices, blocking the uncontrolled air leakage that can threaten consistent, comfortable indoor temperatures (not to mention drive up energy bills).

STYROFOAM™ Brand SPF Insulation serves as both an insulation and air sealant, plus resists moisture and provides structural reinforcement.*

Expand the comfort zone and watch customer satisfaction grow with STYROFOAM™ Brand SPF Insulation.

The Benefits of STYROFOAM™ Brand SPF Insulation
- Closed-cell, 2 pcf foam
- Maximum insulation performance (aged R-value 6.0 at 1" for MX 2030 and 6.5 at 1" for MX 2045)
- Two formulas for wide processing latitude
- Resists moisture and minimizes condensation potential
- Allows installation of air barrier and insulation in one step, reducing construction time
- Eliminates extra steps for flashing and vapor barrier installation (depending on local code requirements)
- Provides structural reinforcement for improved racking strength*
- Can offer upsell opportunities based on energy savings and enhanced home performance

*STYROFOAM™ Brand SPF Insulation provides structural enhancement only. Use in conjunction with approved structural components and framing members consistent with local building code requirements.
**Stop the Great Escape**

Uncontrolled air leakage is an enemy of energy efficiency in a home, responsible for 25 to 40 percent of energy loss.** While fibrous batts provide minimal resistance to air infiltration and exfiltration, STYROFOAM™ Brand SPF Insulation fills cracks, crevices and penetrations in the building envelope, when properly applied, creating an airtight seal. STYROFOAM™ Brand SPF Insulation also helps contribute to a quieter home by minimizing vibrations and noises that transmit through gaps and cracks in the building envelope.

**Manage Moisture**

Many building failures are related to moisture. Moisture accumulation can result from uncontrolled air movement. Fiberglass batts can have gaps within the cavity. And the air-permeable nature of fiberglass allows air to move right through – just like in a furnace filter. Condensation can occur inside attics, ceilings, walls and floors when warm, humid air passes through or around the insulation and contacts a cold surface.

**Achieve Maximum R-Value**

When comparing rated R-values of different insulation options, be sure you have all the facts. In order to achieve the ratings claimed by fiberglass batt manufacturers in their literature and on their packaging, batt insulation must maintain its full loft. And that’s not easily achieved.

**Source:** www.energystar.gov
Over time, batt insulation sags and settles, losing insulation value and increasing opportunities for air and moisture movement.

Spray polyurethane foam, such as STYROFOAM™ Brand SPF Insulation, does not shrink, sag or settle, and maintains its insulating and air barrier properties over time.

Table 1: Why Choose STYROFOAM™ Brand SPF Insulation Over Fiberglass Batt?

<table>
<thead>
<tr>
<th>Fiberglass Batt</th>
<th>STYROFOAM™ brand SPF Insulation (when properly applied)</th>
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<tbody>
<tr>
<td>Allows air to pass easily through</td>
<td>Creates an airtight, moisture-resistant seal (when properly applied)</td>
</tr>
<tr>
<td>Does not expand; allows gaps for air and moisture intrusion</td>
<td>Expands to seal and insulate cavities, cracks and crevices, (when properly applied)</td>
</tr>
<tr>
<td>Can hold and allow moisture entry</td>
<td>Repels/deflects water</td>
</tr>
<tr>
<td>Rated R-value dependent on &quot;perfect&quot; application; compresses easily, losing insulating value</td>
<td>Will not compress, settle, shrink or sag; delivers an aged R-value 6.0 at 1&quot; for MX 2030 and 6.5 at 1&quot; for MX 2045</td>
</tr>
<tr>
<td>Does not provide structural reinforcement</td>
<td>Adds strength and rigidity to the wall assembly</td>
</tr>
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</table>

STYROFOAM™ Brand SPF Insulation, when properly applied, expands to fill every nook and cranny during application, providing consistent R-value. But when compressed, the effective R-value of batt insulation can be reduced by as much as 50 percent from the maximum rating on the product. Batt insulation also leaves gaps, allowing energy-robbing air and moisture intrusion.

STYROFOAM™ Brand SPF Insulation is such an efficient insulator it enables the potential use of smaller, less-expensive HVAC equipment. At the same time, it can help reduce the amount of ozone-depleting fossil fuels needed for heating and cooling.

Add Structural Reinforcement

STYROFOAM™ Brand SPF Insulation provides structural reinforcement to the homes you build in two important ways:
- Reduces fluctuating temperatures and moisture changes in wood structural components
- Bonds to studs and sheathing, adding strength and rigidity

Temperature and moisture changes of wood are one of the biggest contributors to building movement. By effectively blocking air leakage, STYROFOAM™ Brand SPF Insulation helps keep temperature and moisture levels constant, minimizing expansion and contraction of wood frame walls.

In two independent tests conducted by the National Association of Home Builders’ (NAHB) research center, SPF insulation between wood- and steel-stud wall panels increased racking strength by approximately 25 percent (Figures 1 and 2). The NAHB concluded that during a design racking event like a hurricane, there would be less permanent deformation of wall elements and possibly less damage to a structure braced with SPF-filled walls.

FIGURE 1: 
Racking Load: Structural Resistance to Wind (20 gauge metal stud wall)

OSB
Drywall

Racking Load (lbs)
0 2000 4000 6000 8000

Closed-Cell Spray Foam
Conventional Insulation (R19 Batt)

FIGURE 2: 
Racking Load: Structural Resistance to Wind (wood stud wall construction without bracing)

Plywood Siding
Vinyl Siding

Racking Load (lbs)
0 2000 4000 6000 8000

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Sealing the Envelope

Incorporating STYROFOAM™ Brand SPF Insulation into your construction process is not difficult with proper training. The spray-applied liquid expands on contact and cures to a rigid foam, sealing and insulating all of the hard-to-reach places fiberglass cannot.

STYROFOAM™ Brand SPF Insulation can be installed in new construction after the rough plumbing, electrical wiring, and heating and air conditioning ductwork are installed. In retrofit situations, the foam is sprayed between rafters and floor joists to increase airtightness in the attic and/or crawl space.†† When re-siding, a layer of STYROFOAM™ Brand SPF Insulation can be sprayed in wall cavities and over wood studs before new sheathing and siding are installed, helping to improve comfort and energy efficiency.

Dow requires that trained SPF applicators install STYROFOAM™ Brand SPF Insulation, and recommends SPF installation certifications. Contact your Dow representative for a list of qualified insulation contractors in your area.

STYROFOAM™ Brand SPF Insulation meets IBC/IRC requirements for foam plastic insulation and is UL Classified Class I at 4 inches (UL 723). Also see ICC ESR-2670, ASTM C1029 and ASTM E84.