Foam-Control MAX® is a UL recognized insulation.

There are marketplace misconceptions on the performance of Foam-Control MAX compared to Polyiso (polyisocyanurate) insulation.
There are many myths about the performance of Foam-Control MAX compared to Polyiso insulation. 
- Consider these facts and make an educated decision -

**Closed Cell Polystyrene Foam Filled with Air.**

Foam-Control MAX is a closed cell foam. It is manufactured from expanded polystyrene resin which is molded into blocks. Foam-Control MAX contains air within the closed cells.

**ASTM C578 Standard Compliance.**


**R-value: Stable Long-Term.**

The trapped gas in the cells of Foam-Control MAX is air. The air in Foam-Control MAX is in balance with the atmosphere during the life of the foam. The result is Foam-Control MAX has a stable R-value over its lifetime.

**R-value: Cold Temperature.**

The R-value of Foam-Control MAX increases as temperatures drop. This means the Foam-Control MAX has improved performance in cold climates.

**Versatility.**

Foam-Control MAX is manufactured in any thickness to meet project R-value requirements. Custom taper panels, flute filler, and one piece valleys readily available at low cost.

**Dimensional Stability.**

Foam-Control MAX has exceptional dimensional stability when exposed to extreme temperature and moisture conditions.

**Vapor Permeance.**

The vapor permeability of Foam-Control MAX ranges from 2.5 to 5.0 perms for a 1 in. thick material. Film faced Foam-Control MAX is available when low permeability is needed.

**Closed Cell Polyisocyanurate Foam Filled with an Unknown Gas.**

Polyiso insulation is a closed cell foam. It is manufactured from methylene diphenyl disocyanate (MDI), polyester-derived polyol, blowing agents, and other additives. Polyiso insulation contain gases other than air within the closed cells.

**ASTM C1289 Standard Compliance.**


**R-value: Loses R-value over Time.**

The trapped gases in the cells of Polyiso assist to provide an initial high R-value. During the life of the Polyiso, air from the atmosphere diffuses in and the trapped gases diffuse out. The result is Polyiso loses R-value over its lifetime.

**R-value: Cold Temperature.**

The R-value of Polyiso has been shown to drop significantly as temperatures drop. This means the performance of Polyiso is well below the claimed performance in cold climates.

**Versatility.**

Polyiso is manufactured in limited thicknesses. Tapered panels have limited availability at high cost. Custom flute filler and one piece valleys not available.

**Dimensional Stability.**

Shrinkage, curling, and cupping have been observed for Polyiso exposed to extreme temperature and moisture.

**Vapor Permeance.**

The vapor permeability of Polyiso generally ranges from 1.5 to 4.0 perms for a 1 in. thick material. Aluminum faced Polyiso is available when low permeability is needed.
When purchasing insulation materials, the cost per R-value and strength are critical benchmarks. Foam-Control MAX is available with compressive strengths of 10, 15, and 25 psi. Foam-Control MAX insulation provides more thermal resistance (R-value) per dollar than Polyiso.

**Polyiso is Expensive.**

Products with compressive strengths of 16 to 25 psi are most common. Although Polyiso has a slightly higher R-value, the cost per R-value is much higher making Polyiso a more expensive insulation. In addition, the R-value is not stable for the life of the product.

**Foam-Control MAX Provides a Permanent Lifetime R-value.**

The 5 year and 50 year R-values for Foam-Control MAX are the same as the initial R-value since the gas trapped in the cells of Foam-Control MAX is atmospheric air. Unlike Polyiso, Foam-Control MAX does not lose R-value over time.

<table>
<thead>
<tr>
<th>Insulation</th>
<th>Initial R-value</th>
<th>5 year R-value</th>
<th>50 year R-value</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foam-Control MAX 150</td>
<td>5.0&lt;sup&gt;1&lt;/sup&gt;</td>
<td>5.0&lt;sup&gt;1&lt;/sup&gt;</td>
<td>5.0&lt;sup&gt;1&lt;/sup&gt;</td>
<td>$</td>
</tr>
<tr>
<td>Foam-Control MAX 250</td>
<td>5.0&lt;sup&gt;1&lt;/sup&gt;</td>
<td>5.0&lt;sup&gt;1&lt;/sup&gt;</td>
<td>5.0&lt;sup&gt;1&lt;/sup&gt;</td>
<td>$$</td>
</tr>
<tr>
<td>Polyiso</td>
<td>approximately 7.2</td>
<td>5.6&lt;sup&gt;2&lt;/sup&gt;</td>
<td>4.5&lt;sup&gt;3&lt;/sup&gt;</td>
<td>$$$</td>
</tr>
</tbody>
</table>

<sup>1</sup>R-values at 75°F and are based on 1/4" thickness, units are °F•ft<sup>2</sup>•h/Btu
<sup>2</sup>The LTR value commonly published from testing to ASTM C1303 or CAN/ULC-S770 is an estimate for the R-value of the insulation after 5 years.
<sup>3</sup>Estimate based on 80% of published R-value

**Foam-Control MAX Powers Up at Cold Temperatures.**

The R-value of Foam-Control MAX increases as the temperature gets colder. In contrast, the R-value of Polyiso drops when temperature conditions are cold.
Foam face-off: Choosing Foam-Control MAX over Polyiso.

- Foam-Control MAX powered by graphite provides a stable long-term high R-value at a lower cost
- Foam-Control MAX uses a blowing agent with low global warming potential and low ozone depletion
- Foam-Control MAX meet strength requirements at a lower cost
- Foam-Control MAX and Polyiso have resistance to moisture. Foam-Control MAX has a higher vapor permeance leading to superior drying potential
- Foam-Control MAX with Perform Guard® treatment available to provide termite resistance

Proven to meet, or exceed, building codes.

Foam-Control MAX is manufactured under an industry leading quality control program monitored by UL and further recognized in UL Evaluation Report UL ER11812-05. Foam-Control MAX meets ASTM C578, “Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation”.

Performance Value.

When you consider all performance characteristics and cost, Foam-Control MAX is your best choice for foam insulation. Foam-Control MAX has air in its closed cells and therefore has a stable R-value. Many other insulations use blowing agents that cause R-value loss and are harmful to the environment. Foam-Control MAX has compressive strength to meet specific project requirements. Foam-Control MAX is manufactured to resist moisture absorption in wetting conditions and release absorbed moisture quickly during drying periods, which means Foam-Control MAX maintains R-value.

Ready to take control? Start here.

If you’re ready to have Foam-Control MAX contribute to your next project, just contact your nearest Foam-Control MAX manufacturer and Technical Sales Representative. We will be happy to give you design consultation, information about Foam-Control MAX products, pricing, and answers to all of your questions.