WHAT'S THE DIFFERENCE BETWEEN FOAM-CONTROL PLUS+ AND POLYISO INSULATION

Foam-Control PLUS+ is an ICC-ES and UL recognized insulation which has 50 years of proven performance.

There are marketplace misconceptions on the performance of Foam-Control PLUS+ compared to Polyiso (polyisocyanurate) insulation.

FOAM-CONTROL PLUS+™

AN ARCHITECTURAL INSULATION LIKE NO OTHER

FOAM-CONTROL PLUS+ COMPARED TO POLYISO

There are many myths about the performance of Foam-Control PLUS+ compared to Polyiso insulation.
– Consider these facts and make an educated decision –

FOAM-CONTROL PLUS+

Closed Cell Polystyrene Foam Filled with Air.

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

ASTM C578 Standard Compliance.

Foam-Control PLUS+ is manufactured in compliance with ASTM C578, "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation". Foam-Control PLUS+ is recognized in UL ER11812-01 and ICC-ES ESR-1006 evaluation reports.

R-value: Stable Long-Term.

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

R-value: Cold Temperature.

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

Versatilty.

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

Vapor Permeance.

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

POLYISO

Closed Cell Polyisocyanurate Foam Filled with an Unknown Gas.

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

ASTM C1289 Standard Compliance.

Polyiso is manufactured in compliance with ASTM C1289, "Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board". There is limited recognition of Polyiso in either UL or ICC-ES evaluation reports.

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.

Versatilty.

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.

FOAM-CONTROL PLUS+ COMPARED TO POLYISO

FOAM-CONTROL PLUS+ is a Great Value.

When purchasing insulation materials, the cost per R-value and strength are critical benchmarks. Foam-Control PLUS+ is available with compressive strengths of 15, 25, 40, and 60 psi. Foam-Control PLUS+ 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 PLUS+ Provides a Permanent Lifetime R-value.

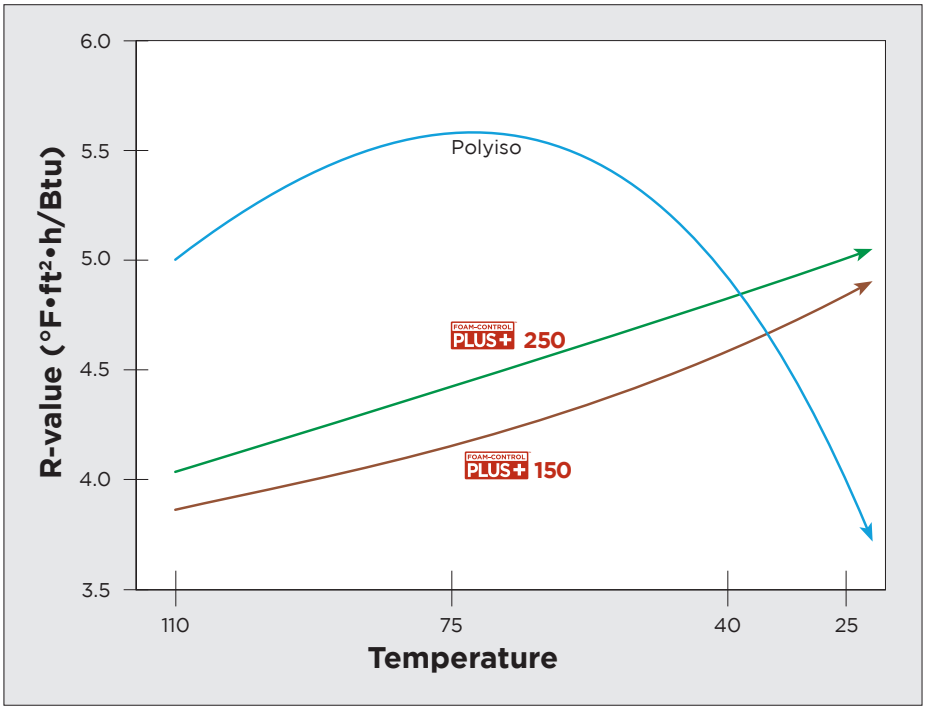
The 5 year and 50 year R-values for Foam-Control PLUS+ are the same as the initial R-value since the gas trapped in the cells of Foam-Control PLUS+ is atmospheric air. Unlike Polyiso, Foam-Control PLUS+ does not lose R-value over time.

	Initial R-value/inch	5 year R-value/inch	50 year R-value/inch	Cost
FOAM-CONTROL PLUS+ 150	4.2	4.2	4.2	$
FOAM-CONTROL PLUS+ 250	4.4	4.4	4.4	$$
Polyiso	approximately 7.2	5.6[2]	4.5[3]	$$$

[1] R-values at 75°F, units are °F•ft²•h/Btu
[2] The LTTR 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.
[3] Estimate based on 80% of published R-value

Foam-Control PLUS+ Powers Up at Cold Temperatures.

The R-value of Foam-Control PLUS+ increases as the temperature gets colder. In contrast, the R-value of Polyiso drops when temperature conditions are cold.



Foam face-off: Foam-Control PLUS+ outperforms Polyiso.

- Foam-Control PLUS+ provides more R-value at a lower cost
- Polyiso uses blowing agents that cause R-value loss over time
- Polyiso loses R-value during cold and extreme high temperature exposure
- Foam-Control PLUS+ has a stable long term R-value
- Foam-Control PLUS+ available in 15, 25, 40, and 60 psi strengths at a lower cost
- Foam-Control PLUS+ has a superior drying potential
- Foam-Control PLUS+ is more vapor permeable to help avoid moisture problems

Proven to meet, or exceed, building codes.

Foam-Control PLUS+ is manufactured under an industry leading quality control program monitored by UL and further recognized in UL Evaluation Report UL ER11812-04.

Foam-Control PLUS+ meets ASTM C578, "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation".

Performance Value.

When you consider all performance characteristics and cost, Foam-Control PLUS+ has the best performance value of any commercially available foam insulation.

Foam-Control PLUS+ has a wide range of compressive strengths to meet specific project requirements.

Foam-Control PLUS+ 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 PLUS+ is manufactured to resist moisture absorption in wetting conditions and release absorbed moisture quickly during drying periods, which means Foam-Control PLUS+ maintains R-value.

Ready to take control? Start here.

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

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