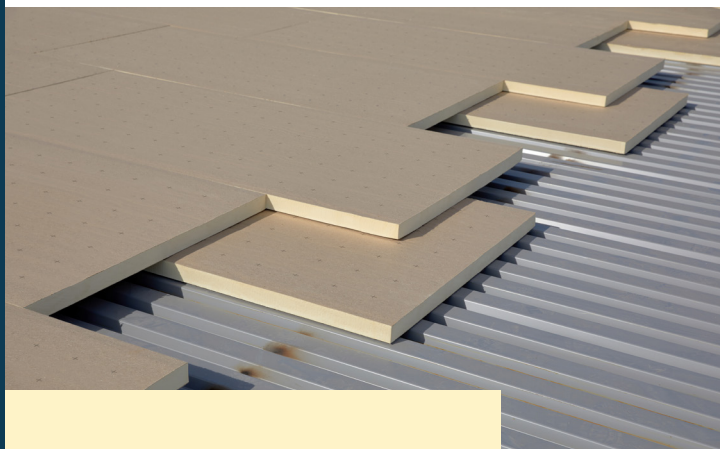


EPD SUMMARY

Polyiso Roof Insulation Boards



The PIMA Polyiso Roof Insulation Boards EPD is applicable to coated glass faced (CGF) and glass fiber reinforced faced (GRF) polyiso roof insulation board products manufactured by participating North American producers. This summary provides key details and facts about the EPD report. More information on the environmental impacts and benefits of polyiso insulation products is available at www.polyiso.org.

Key Details

EPD Registration Number
[EPD11188](#)

Program Operator
NSF

Product Category Rule (Part B)
Building Envelope Thermal
Insulation EPD Requirements
([ULE 10010-1](#); Published
Date: November 3, 2025)

EPD Type
Industry-average

EPD Scope
Cradle-to-grave
(system boundary)

Functional Unit
1 m² of insulation material
with a thickness that gives an
average thermal resistance
of RSI = 1 m²·K/W (R-value
of 5.678 ft²·h·°F/Btu) with
a building service life of 75
years

Valid Until
February 28, 2031

Primary Data (Year)
2023

Geographical Scope
North America (United States
and Canada)

What to Know About PIMA's EPD for Polyiso Roof Insulation Boards

Cradle-to-Grave

The EPD utilizes a cradle-to-grave system boundary and reports the impacts from the full product life cycle over a 75-year building service life.

Replacement Factor

For polyiso roof insulation boards, the EPD considers the impacts of a full roof replacement during the 75-year building service life. This replacement factor (module B4) multiplies the A1-A5 module impacts by 0.9 and should be considered when evaluating other products marketed or commonly specified as roof insulation.

Scaling Factors

The EPD provides market scaling factors that allow users to estimate the impacts of specific polyiso roof insulation product thicknesses with attributed R-values. Examples are provided within this summary.

Embodied Carbon ROI

Insulation uniquely reduces the impacts of building operations (heating and cooling loads) throughout its service life. Embodied impacts are recovered through these energy and associated emissions savings over a relatively short period. More information on insulation savings benefits can be found at www.polyiso.org.

Comparisons

When a manufacturer-specific EPD is benchmarked against an industry-average EPD, the manufacturer shall have participated, either originally or retroactively, in the industry-average EPD (see UL Part A PCR Section 10.2).



Surround yourself with the best.

Embodied Carbon Impacts of Common Polyiso Roof Insulation Board R-values

Embodied carbon, or global warming potential (GWP), is the most referenced impact category for building products. The table below summarizes the GWP impacts for commonly installed polyiso roof insulation board R-values. The totals account for the full life cycle impacts (cradle-to-grave system boundary), including a full roof replacement, and were calculated using the market scaling factors provided within the EPD.

Importantly, GWP is one of seven environmental impact indicators included in the EPD report. Other indicators include Abiotic Resource Depletion Potential of Fossil Fuels, Acidification Potential, Eutrophication Potential — Freshwater and Marine, Ozone Layer Depletion Potential, and Smog Formation Potential. Users are encouraged to consult the PIMA Polyiso Roof Insulation Boards EPD for complete details ([NSF EPD11188](#)).

Polyiso Roof Insulation with Coated Glass Facers (CGF) Global Warming Potential Impacts (Modules A1-C4)				
Compressive Strength	Functional Unit	R-12.6 Board (2.2" Nominal Thickness)	R-15 Board (2.6" Nominal Thickness)	R-18.0 Board (3.1" Nominal Thickness)
	kg CO ₂ e per m ²			
20 psi	9.75	16.21	18.35	21.03
25 psi	9.71	16.29	18.46	21.19

Polyiso Roof Insulation with Glass Reinforced Facers (GRF) Global Warming Potential Impacts (Modules A1-C4)				
Compressive Strength	Functional Unit	R-12.6 Board (2.2" Nominal Thickness)	R-15 Board (2.6" Nominal Thickness)	R-18.0 Board (3.1" Nominal Thickness)
	kg CO ₂ e per m ²			
20 psi	7.38	13.19	15.12	17.53
25 psi	7.61	13.72	15.75	18.29

Participating Manufacturers

Primary data from all of PIMA's 2023 polyiso manufacturer members, regardless of their size, were used for the underlying life cycle assessment. According to industry estimates, PIMA members account for more than 90 percent of the polyiso produced and installed in North America based on the number of manufacturing plants. Results in this declaration represent the combined weighted average production for the companies shown below.







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MANUFACTURERS ASSOCIATION

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