

## Polyiso Eco Products



**ISCC PLUS Certified**



# Sustainability at Carlisle

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Over the past few decades, sustainability has been a growing concern in the building industry, with a significant focus on reducing embodied carbon. Building industry stakeholders have recognized construction materials' profound impact on the environment, leading to a heightened emphasis on sustainable practices. As a result, there has been a surge in efforts to minimize embodied carbon, encompassing the entire lifecycle of building materials from extraction to disposal. This surge is driven by a growing understanding that sustainable construction practices are economically viable, enhance market competitiveness, and align with evolving regulatory frameworks.

Carlisle SynTec Systems' Polyiso Eco is a bio-based polyisocyanurate insulation product engineered to address environmental concerns in the construction industry.

Agricultural raw materials are allocated for use instead of traditional fossil fuel materials. This helps reduce embodied carbon through a mass balance approach under International Sustainability and Carbon Certification (ISCC). Investing in ISCC-certified Polyiso Eco aligns with sustainable construction practices by reducing building projects' carbon footprint. Polyiso Eco provides an eco-conscious insulation solution that upholds performance while improving environmental responsibility.

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# Mass Balance and ISCC PLUS Certification

Mass balance is an accounting and allocation method to trace materials' sustainability and environmental impact within a supply chain. It is employed to track the use of agricultural or recycled materials throughout various stages of production. This approach allows companies to claim the environmental benefits of using these materials without necessitating physical segregation. The mass balance system assigns a percentage of the characteristics of the sustainable material to the final product based on the proportion of that material used at different stages of production. While it doesn't guarantee that the specific sustainable material physically enters every unit of the final product, it provides a transparent and auditable way to communicate the overall impact of incorporating environmentally friendly materials in a supply chain. Carlisle's initial commitment to this material will eliminate up to 7,390 metric tons of carbon dioxide.

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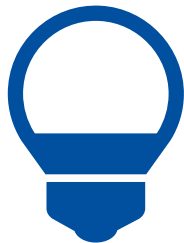
THIS IS EQUIVALENT TO:

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**GREENHOUSE GAS EMISSIONS FROM AN AVERAGE PASSENGER VEHICLE  
DRIVEN FOR 17,711,285 MILES**

**-OR-**



**CARBON DIOXIDE EMISSIONS FROM 261,964 INCANDESCENT LAMPS  
SWITCHED TO LEDS**

**-OR-**



**CARBON SEQUESTERED BY 191,520 TREE SEEDLINGS GROWN FOR  
TEN YEARS**

**ISCC PLUS is a globally recognized standard that confirms Carlisle's compliance with special sustainability standards. It also attests to transparency regarding the traceability of the raw materials used in production processes. By certifying the raw materials, Carlisle can ensure complete traceability of materials from sustainable sources. The ISCC PLUS certification provides a reliable and transparent assurance to consumers, stakeholders, and regulatory bodies that a product meets the highest international sustainability benchmarks.**



# Product Options

This environmentally friendly Polyiso Eco option is available with 5% bio-based and bio-circular content in our most popular insulation products:

## 2.0" and 2.6" InsulBase® Eco

A rigid roof insulation panel composed of a closed-cell polyisocyanurate foam core bonded to **glass-reinforced felt (GRF) facers**. UL and FM approved for direct application over steel decks, polyiso provides the highest R-value per inch of any commercially available insulation product.

**Sizes:** 4' x 4' and 4' x 8'  
**Compressive Strengths:** 20 and 25psi

## 2.0" and 2.6" SecurShield® Eco

A rigid roof insulation panel composed of a closed-cell polyisocyanurate foam core bonded to high performance **coated glass facers (CGF)**. ReadyFlash® features a dark CGF to accelerate adhesive flash-off on one side of the insulation board and a light CGF to slow down adhesive flash-off on the other. Ideal for use in adhered membrane systems. Achieves a UL Class A fire rating direct to combustible deck.

**Sizes:** 4' x 4' and 4' x 8'  
**Compressive Strengths:** 20 and 25psi

## 0.5" SecurShield HD Eco

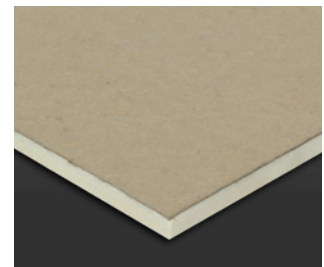
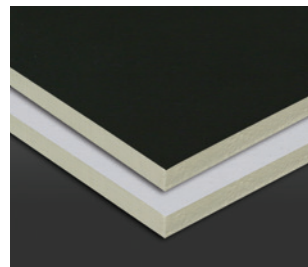
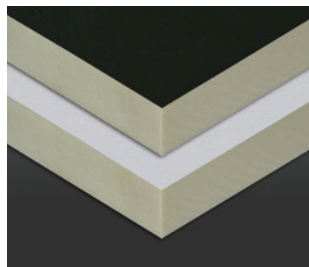
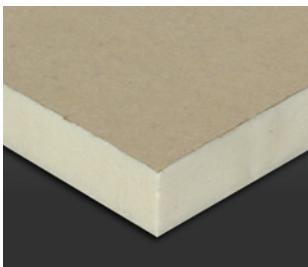
A rigid roof insulation panel composed of ½" high-density, closed-cell polyisocyanurate foam core bonded to a premium performance **coated glass facer (CGF)** specifically designed for use as a cover board. ReadyFlash features a dark CGF to accelerate adhesive flash-off on one side of the insulation board and a light CGF to slow down adhesive flash-off on the other. Provides 5 times the R-value at one-fifth the weight of traditional gypsum cover boards. Achieves a UL Class A fire rating direct to combustible deck.

**Sizes:** 4' x 4' and 4' x 8'  
**Compressive Strength:** 109psi max

## 0.5" InsulBase HD Eco

A rigid-roof insulation cover board composed of a high-density closed-cell polyisocyanurate foam core bonded on each side to **glass-reinforced felt (GRF)**. Suitable for both re-roofing and new construction applications, InsulBase HD is specifically designed for use as a cover board in mechanically-attached single-ply systems only. InsulBase HD delivers an R-value of 2.5.

**Sizes:** 4' x 4' and 4' x 8'  
**Compressive Strength:** 80psi



## PERFORMANCE CHARACTERISTICS AND APPLICATION SPECIFICATIONS

Polyiso Eco maintains all performance characteristics and application specifications of our traditional systems, allowing seamless integration of our Polyiso Eco into your projects.

- » Long-Term Thermal Resistance (LTTR) and R-value
- » Compressive strength
- » Dimensional stability
- » Moisture vapor performance & water absorption
- » Fire performance and approvals
- » Third-party certifications, including FM and UL approvals
- » Application methods (adhesive compatibility, fastener patterns, details, etc.)

## BUILDING OWNER BENEFITS

Reduced embodied carbon in building materials helps to address many of the challenges that building owners face in a changing economic and environmental landscape while enhancing their properties' overall value and sustainability. Building owners can utilize this data to showcase the environmental benefits of choosing Polyiso Eco, reinforcing their commitment to sustainability and making informed decisions for a greener, more resilient future:



**CLIMATE CHANGE  
MITIGATION**



**TENANT AND INVESTOR  
MARKET DEMAND  
PREFERENCES**



**BUILDING CODE  
COMPLIANCE**



**CORPORATE SOCIAL  
RESPONSIBILITY (CSR)**



**FUTURE-PROOFING  
INVESTMENTS**

## Corporate Social Responsibility Opportunities

Building owners choosing Polyiso Eco gain tangible advantages thanks to its commitment to sustainability through Scope 3 reductions and ISCC PLUS certification.

# 1

### SCOPE 3 EMISSIONS REDUCTION:

Polyiso Eco contributes to Scope 3 emissions reduction. By incorporating bio-based raw materials and employing a mass balance approach, building owners experience a measurable decrease in the overall carbon footprints of their structures.

# 2

### ISCC PLUS CERTIFICATION:

Certification ensures Polyiso Eco adheres to internationally recognized sustainability and carbon standards. Building owners can confidently demonstrate their commitment to responsible sourcing and environmental stewardship, aligning with regulatory requirements and industry best practices.

# 3

### EMISSIONS SAVINGS OVERVIEW:

The table below provides a comprehensive overview of the emissions savings achieved by investing in Polyiso Eco, which was calculated using the EPA emissions calculator. This data is generated using a 100,000-square-foot roof with two layers of insulation providing R-25 (2.0") and R-30 (2.6") systems before cover board.

		HD	2.0"	2.6"	2.0" and HD	2.6" and HD
Embodied carbon reduction	Metric tons	1.47	4.82	6.26	6.29	7.74
Greenhouse gas emissions	# of passenger vehicles driven for one year	0.3	1	1.3	1.3	1.6
CO <sub>2</sub> emissions	# of incandescent lamps switched to LEDs	52	171	222	223	274
Carbon sequestered	# of tree seedlings grown for 10 years	38	125	162	163	201

*EXPERIENCE THE CARLISLE DIFFERENCE*



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