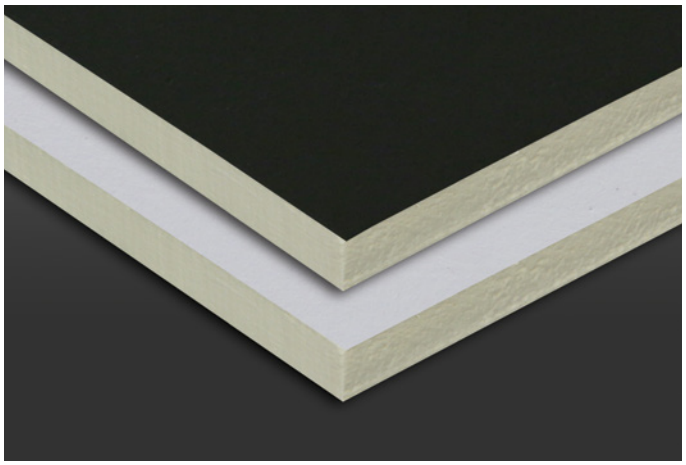
CARLISLE SYNTEC SYSTEMS

SecurShield® HD POLYISO
Insulation

HFC-FREE



Overview

Carlisle's SecurShield HD Polyiso Insulation is a rigid roof insulation panel composed of a high-density, closed-cell polyisocyanurate foam core laminated to a premium-performance, coated-glass facer (CGF). Suitable for both re-roofing and new construction applications, SecurShield HD is specifically designed for use as a cover board over a variety of substrates. SecurShield HD delivers an R-value of 2.5, which is significantly higher than roof cover boards made with other materials such as wood fiber or gypsum. ReadyFlash® Technology is a standard feature of SecurShield HD Polyiso that allows the contractor to manipulate flash-off times by choosing which side of the insulation board to apply membrane adhesives. ReadyFlash features a dark coated-glass facer (CGF) on one side of the insulation board and a light coated-glass facer on the other. Utilizing the sun's energy, the dark facer accelerates adhesive flash-off while the light facer slows it down.

Features and Benefits

- Lightweight and easy to cut, handle, and install – no crumbling of material
- Achieves a UL Class A direct to combustible deck rating – Maximum roof slope - 1":12"
- Exceptional protection against hail, rooftop traffic, mold, and moisture
- High-density formulation achieves FM severe hail rating (SH)
- 2x higher R-value than wood fiber boards
- 5x higher R-value than and ⅕ the weight of gypsum cover boards
- Coated glass facer provides strong bond for adhered roofing applications

Sustainable Attributes

Carlisle SynTec Systems' focus has always been innovation – Innovation to solve problems, improve performance, reduce labor, and above all, improve sustainability. Carlisle is committed to driving sustainable and efficient processes in the design and manufacturing of our products.

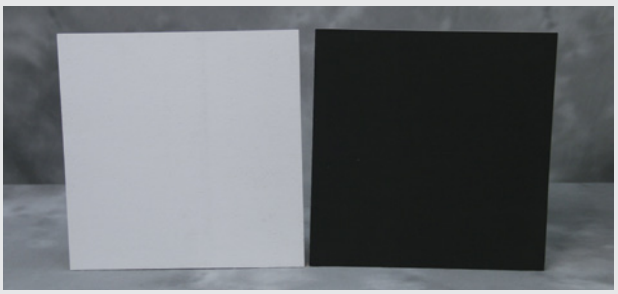
- Zero ozone-depleting components, HFC- and HCFC-free formulation
- CDPH Compliant for maximum allowable concentrations of target VOCs
- 8.2% pre-consumer recycled content by weight
- Contributes to LEED® and Green Globes certification requirements
- End-of-life jobsite disposal options available for re-use/re-purposing
- Carlisle Polyiso Roof Insulation and HD Cover Board EPDs available
- PIMA Quality Mark Certification Program participant for Long-Term Thermal R-values (LTTR)
- Highest R-value per inch providing maximum energy savings and CO_2 emissions avoidance

Polyiso Eco Ready (Optional)

- 5% bio-content option available (for 2.0" and 2.6" thicknesses)
- Contributes to carbon reduction initiatives via mass balance approach under ISCC PLUS compliance

ReadyFlash TECHNOLOGY

- Allows the contractor to speed up or slow down adhesive flash-off time
- Increases surface temperature of the dark facer up to 50°F above ambient temperature
- Decreases surface temperature of the light facer up to 10°F below ambient temperature
- Provides up to 2x faster adhesive flash-off on cooler days and up to 4x faster on warmer days when utilizing the dark facer



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Product Characteristics

- Panel sizes:
  - 4' x 8' (1220 mm x 2440 mm)
  - 4' x 4' (1220 mm x 1220 mm)
- Panel thickness: ½" (13 mm)
- Weight: 0.343 lbs/sq. ft.
  - 11 lbs (4.99 kg) per 4' x 8' panel
  - 5.5 lbs (2.49 kg) per 4' x 4' panel

Installation

Mechanically Attached Single-Ply Systems

Each SecurShield HD panel must be secured to the substrate with approved Carlisle fasteners and plates. Butt edges and stagger joints of adjacent panels. Install the roof membrane according to Carlisle specifications.

Fully Adhered Single-Ply Systems

Carlisle's SecurShield HD may be secured to the roof deck using Carlisle's Flexible FAST™ adhesive, fasteners and plates. For adhesive coverage or fastening patterns and requirements, please contact Carlisle's Design Services group. Butt the edges of the insulation panels and stagger the joints. Install the membrane according to Carlisle specifications.

Review Carlisle specifications and details for complete installation information.

Precautions

Insulation must be protected from open flame and kept dry at all times. Install only as much insulation as can be covered the same day by completed roof-covering material. SecurShield HD is not compatible with hot mop asphalt or ballasted systems. Carlisle will not be responsible for specific building and roof design, for deficiencies in construction or workmanship, for dangerous conditions on the jobsite, or for improper storage and handling. Technical specifications shown in this literature are intended to be used as general guidelines only and are subject to change without notice. Call Carlisle for more specific details or refer to PIMA Technical Bulletin No. 109: Storage and Handling Recommendations for Polyiso Roof Insulation.

Codes and Compliances

- ASTM C1289, Type II, Class 4, Grade 1 (109 psi max.)
- International Building Code (IBC) Section 2603
- UL Standard 790, 263 and 1256: Component of Class A Roof Systems (refer to UL Roof Materials' system directory)
- FM Standards 4450/4470: Class 1 approval for steel roof-deck constructions (refer to FM RoofNav)
- California Codes of Regulations, Title 24, Insulation Quality Standard License #TI-1418
- CAN/ULC S704, Type 3, Class 2
- Florida Building Code Approval

Typical Properties and Characteristics

Physical Property	Test Method	Value
Compressive Strength	ASTM D1621	109 psi max
Dimensional Stability	ASTM D2126	<0.5% linear change (7 days)
Water Absorption	ASTM C209	<1% volume
R-value	ASTM C518	2.5
Thickness		½"
Service Temperature		260°F (126°C) or less
Resistance to Mold	ASTM D3273	Passed
Flute Spanability	FM 4451	5.25"

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

CLASSIFIED C UL US

Foamed plastic as roof deck construction material with resistance to an internal fire exposure only for use in construction no.(s) 120 and 123. See UL Directory of Products Certified for Canada and UL Roofing Materials and Systems Directory. 99DL.

ISCC International Sustainability & Carbon Certification

U.S. GREEN BUILDING COUNCIL

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