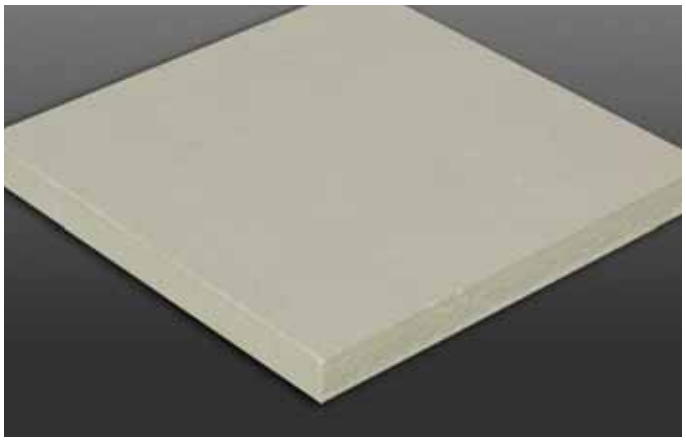
CARLISLE SYNTEC SYSTEMS

SecurShield™ HD Plus POLYISO
Insulation



Overview

Carlisle's SecurShield HD Plus Polyiso Insulation is an FM-approved, ½"- thick high-density polyiso insulation panel specifically designed for use as a cover board in fully adhered systems. Suitable for both re-roofing and new construction applications, this product is manufactured on-line using premium-performance coated glass facers (CGF). SecurShield HD Plus 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.

Features and Benefits

- High-density insulating cover board
- Exceptional protection against hail, rooftop traffic, mold, and moisture
- High-density formulation achieves FM severe hail rating (SH)
- 5 times higher R-value than gypsum cover boards
- 2 times higher R-value than wood fiber boards
- ⅕ the weight of gypsum cover boards
- Compatible with all Carlisle single-ply roofing systems (except ballast)
- Coated glass facer provides strong bond for adhered roofing applications

Productivity Boosting Features and Benefits:

- Industry-leading 8 fasteners per 4' x 8' board needed to meet Factory Mutual (FM) 1-90
- Can be installed in corners and perimeters per FM requirements
- Lightweight and easy to cut, handle, and install
- Up to $0.10/ft² fastener, plate, and labor savings

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: 0.406 lbs/sq. ft.
  - 13 lbs (5.9 kg) per 4' x 8' panel
  - 6.5 lbs (2.9 kg) per 4' x 4' panel

Code 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
- Third-party certification with PIMA Quality Mark for Long-Term Thermal Resistance (LTTR) values
- CAN/ULC S704, Type 3, Class 2
- Florida Building Code Approval

Installation

Mechanically Attached Single-Ply Systems

Each SecurShield HD Plus 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

SecurShield HD Plus may be secured to the roof deck using Carlisle's FAST™ and Flexible FAST Adhesives, OlyBond 500® insulation adhesive, fasteners and plates, or hot asphalt (appropriate to the deck type). 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. Be certain to install boards with the proper side down, as indicated on each board. Install the membrane according to Carlisle specifications.

Review Carlisle specifications and details for complete installation information.

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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. 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.

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

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.

LEED® Information

Pre-consumer Recycled Content	9%
Post-consumer Recycled Content	0%
Manufacturing Location	Smithfield, PA Franklin Park, IL Tooele, UT
Solar Reflectance Index (SRI)	N/A

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