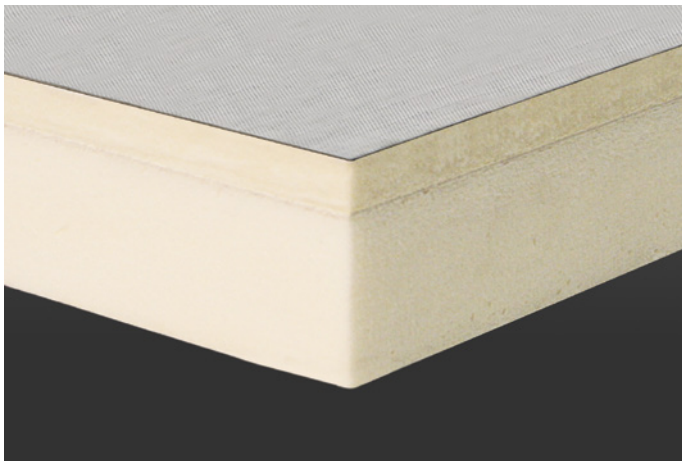
CARLISLE SYNTEC SYSTEMS

SecurShield® HD Composite RL® POLYISO
Insulation

HFC-FREE



Overview

Carlisle's SecurShield HD Composite RapidLock combines the revolutionary membrane attachment method of RapidLock and the incredible performance of SecurShield HD Composite. RapidLock is a hook and loop attachment system powered by VELCRO® Brand Securable Solutions. Carlisle's insulation boards act as the hook while the FleeceBACK® membranes act as the loop, creating the industry's first adhesive-less, fully adhered attachment system. RapidLock provides a fully adhered roofing system without VOCs or installation temperature restrictions. Carlisle's SecurShield HD Composite RapidLock Polyiso is a rigid roof insulation panel composed of a top layer of high-density, closed-cell foam, and a bottom layer of 20 psi closed-cell foam. Both layers are laminated to a premium-performance, coated glass mat facer (CGF).

Features and Benefits

- SecurShield HD Composite RapidLock is produced on-line, creating a single-component solution that eliminates the need for cover boards, reduces inter-ply adhesives, and saves labor
- Allows for adhesive-less roofing system
- Superior wind uplift performance: Achieves an FM 1-90 approval rating with only 6 fasteners
- Exceptional protection against hail, rooftop traffic, mold, and moisture

Panel Characteristics

- Panel Sizes: 47.5" x 95.5" (1206 mm x 2425 mm) and 47.5" x 47.5" (1206 mm x 1206 mm)
- Panel Thickness: 2.0" to 4.0" in .5" increments

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.

- Highest R-value per inch providing maximum energy savings and CO^2 emissions avoidance
- PIMA Quality Mark℠ Certification Program participant for Long-Term Thermal R-values (LTTR)
- Carlisle Polyiso Roof Insulation and HD Cover Board EPDs available
- Contributes to LEED® and Green Globes certification requirements
- End-of-life jobsite disposal options are available for reuse/repurposing
- HFC- and HCFC-free formulation

Code and Compliances

- Cover Board – SecurShield HD: ASTM C1289 Type II, Class 4, Grade 1 (109 psi max)
- Base Insulation – SecurShield: ASTM C1289 Type II, Class 2, Grade 2 (20 psi)
- International Building Code (IBC) Chapter 26
- 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)
- Cover Board – SecurShield HD: CAN/ULC S704, Type 3, Class 2
- Base Insulation – SecurShield: CAN/ULC S704 Type 2, Class 2
- Florida Building Code Approval

Installation

Single-Ply Systems

Each SecurShield HD Composite RapidLock panel must be secured to the roof deck with plates and fasteners (appropriate to deck type) or Flexible FAST™ Adhesive. Butt edges and stagger joints of adjacent panels. Install the roof membrane according to Carlisle's specifications. A broom or blower must be used to ensure that the RapidLock facer is free of dust, dirt, and debris prior to installing the appropriate RapidLock membrane. SecurShield HD Composite RapidLock is ONLY compatible with Carlisle's RapidLock membrane.

Review Carlisle specifications and details for complete installation information.

CARLISLE SYNTEC SYSTEMS

SecurShield® HD Composite RL POLYISO
Insulation

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. Protect installed product from excessive foot traffic. SecurShield HD Composite RapidLock is not compatible with hot mopped asphalt. Carlisle will not be responsible for specific building and roof design by others, 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 & Handling Recommendations for Polyiso Roof Insulation.

SecurShield HD Composite Thermal Values

Thickness (inches)	Thickness (MM)	LTTR R-value	Flute Spanability
2.00	51	11.1	4 3/8"
2.50	64	13.9	4 3/8"
3.00	76	16.9	4 3/8"
3.50	89	19.9	4 3/8"
4.00	102	23.0	4 3/8"

SecurShield HD Composite "RapidLock" R-value is calculated by adding together the R-values of SecurShield HD RapidLock and SecurShield.

SecurShield

Physical Property	Test Method	Value
Compressive Strength	ASTM D1621 ASTM D1289	20 psi minimum (138 kPa, Grade 2)
Dimensional Stability	ASTM D2126	<2% linear change (7 days)
Moisture Vapor Transmission	ASTM E96	< 1 perm (57.5ng/(Pa•s•m^2))
Water Absorption	ASTM C209	Passed (10)
Service Temperature		-100° to 250°F (-73°C to 122°C)

SecurShield HD

Physical Property	Test Method	Value
Compressive Strength	ASTM D1621 (modified)	109 psi max
Dimensional Stability	ASTM D2126	<0.5% linear change (7 days)
Water Absorption	ASTM C209	<1% volume
Resistance to Mold	ASTM D3273	Passed (10)
Service Temperature		-100° to 250°F (-73°C to 122°C)
R-value		2.5

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.

PIMA QualityMark™ The Certified LTTR-value

800-479-6832 | P.O. Box 7000 | Carlisle, PA 17013 | Fax: 717-245-7053 | www.carlislesyntec.com