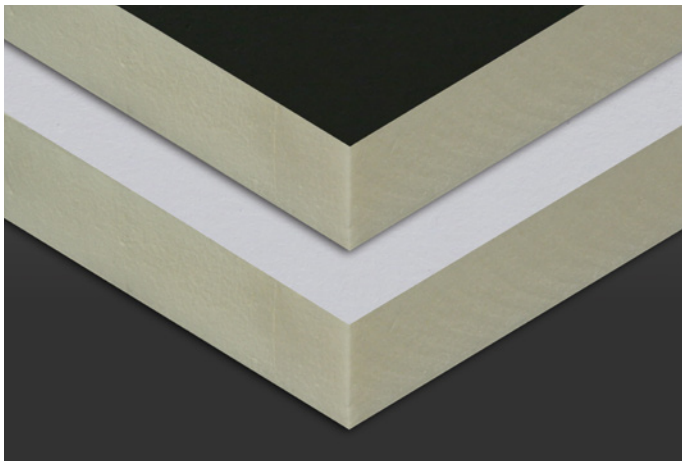
CARLISLE SYNTEC SYSTEMS

SecurShield® POLYISO Insulation

HFC-FREE



Overview

SecurShield Polyiso is a rigid roof insulation panel composed of a closed cell polyisocyanurate foam core bonded during the manufacturing process to premium performance coated-glass facers (CGF). ReadyFlash® Technology is a standard feature of SecurShield 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

- Achieves a UL Class A combustible deck rating at a 1" thickness without the use of a fire-rated slip sheet or the presence of a gypsum coverboard – *Maximum roof slope - ½":12"
- Premium facer improves fire resistance, moisture resistance and dimensional stability
- Superior bond to the foam core enhances wind-uplift performance
- Highest R-value per inch of commercially available insulation

Panel Characteristics

- Available in 4' x 4' (1220 mm x 1220 mm) and 4' x 8' (1220 mm x 2440 mm) panels in thickness of ½" (13 mm) to 4.0" (102 mm)

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.

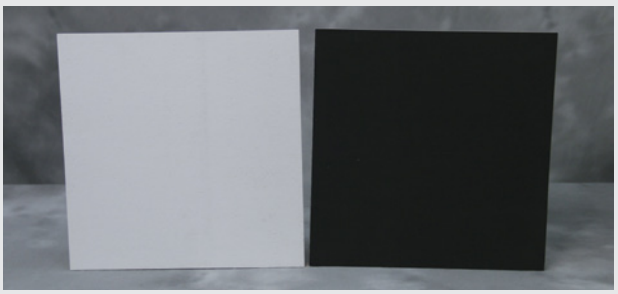
- Zero ozone-depleting components, HFC- and HCFC-free formulation
- CDPH Compliant for maximum allowable concentrations of target VOCs
- Up to 11.2% pre-consumer recycled content by weight
- Contributes to LEED® and Green Globes certification requirements
- End-of-life jobsite disposal options available 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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Installation

Mechanically Attached Single-Ply Systems

Each SecurShield panel must be secured to the roof deck with fasteners and plates (appropriate to the deck type.) Butt edges and stagger joints of adjacent panels. Install the roof membrane according to Carlisle's specifications.

Fully Adhered Single-Ply Systems

Each SecurShield panel must be secured to the roof deck with fasteners and plates (appropriate to the deck type.) Butt edges and stagger joints of adjacent panels. Install the roof membrane according to Carlisle's specifications.

SecurShield 4' x 8' panels can be secured to the roof deck with Carlisle's Flexible FAST™ adhesive technology, with either full coverage or bead spacing of no less than 6" on center.

Review Carlisle specifications and details for complete installation information.

Codes and Compliances

- ASTM C1289, Type II, Class 2, Grade 2 (20 psi), Grade 3 (25 psi)
- 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 Code of Regulations, Title 24, Insulation Quality Standard License #TI-1418
- CAN/ULC S704, Type 2, Class 3 (20PSI), Type 3, Class 3 (25PSI)
- Florida Building Code Approval

NOTE: Please be aware the Federal Specification HH-I-1972/GEN has been replaced.

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 material. Protect installed product from excessive foot traffic. 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.

Typical Properties and Characteristics

Physical Property	Test Method	Value
Compressive Strength	ASTM D1621 ASTM C1289	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•m2))
Water Absorption	ASTM C209	< 1% volume
Service Temperature		-100° to 250° F (-73°C to 122°C)
Resistance to Mold	ASTM D3273	Passed

*Also available in 25 PSI Minimum, Grade 3

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.

SecurShield Polyiso Thermal Values

Thickness (inches)	LTTR R-value	Thickness (inches)	LTTR R-value
0.5	2.8	2.75	15.9
0.75	4.2	2.8	16.2
1	5.7	2.9	16.8
1.1	6.3	3.0	17.4
1.2	6.8	3.1	18.0
1.25	7.1	3.2	18.6
1.3	7.4	3.25	18.9
1.4	8.0	3.3	19.2
1.5	8.6	3.4	19.9
1.6	9.1	3.5	20.5
1.7	9.7	3.6	21.1
1.75	10.0	3.7	21.7
1.8	10.3	3.75	22.0
1.9	10.8	3.8	22.3
2	11.4	3.9	23.0
2.1	12.0	4	23.6
2.2	12.6	4.1	24.2
2.25	12.9	4.2	24.9
2.3	13.2	4.25	25.2
2.4	13.8	4.3	25.5
2.5	14.4	4.4	26.1
2.6	15.0	4.5	26.8
2.7	15.6		

Flute Spanability is 2 ⅝" for 1.4" or thickness or smaller. Flute Spanability is 4 ⅜" for 1.5" thickness or greater.

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

PIMA QualityMark℠ The Certified LTTR-value

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