

# SecurShield® NH POLYISO

## Insulation



### Overview

SecurShield NH Polyiso is an LBC “Red List Free” rigid roof insulation panel composed of a closed cell polyisocyanurate foam core bonded during the manufacturing process to premium performance coated glass facers (CGF). SecurShield NH contains zero halogenated flame retardants.

### Features and Benefits

- » Living Building Challenge “Red List Free” – Declare Label
- » Contains zero halogenated flame retardants
- » Premium facer improves fire resistance, moisture resistance and dimensional stability
- » Enhanced fire resistance for applications directly over wood decks with no fire rated base sheet or thermal barrier required
  - 3" thickness qualifies for a UL Class A rating
  - 1.9" thickness qualifies for a UL Class B rating
- » Superior bond to the foam core enhances wind-uplift performance
- » SecurShield NH polyiso insulation provides the highest R-value per inch of commercially available insulation
- » Zero ozone-depleting components, CFC free and HCFC free

### 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.

- » Highest R-value per inch providing maximum energy savings and CO2 emissions avoidance
- » PIMA Quality Mark(CM) Certification Program participant for Long-Term Thermal R-values (LTTR)
- » CDPH Compliant for maximum allowable concentrations of target VOCs
- » 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 re-use/re-purposing
- » HFC- and HCFC-free formulation

### Installation

#### Mechanically Attached Single-Ply Systems

Each SecurShield NH 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

Each SecurShield NH 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 NH 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.*



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### SecurShield NH 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 3/4" for 1.4" or thickness or smaller. Flute Spanability is 4 3/4" for 1.5" thickness or greater.

### 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<sup>SM</sup>)
- » California Code of Regulations, Title 24, Insulation Quality Standard License #TI-1418

- » Third-party certification with the PIMA Quality Mark for Long-Term Thermal Resistance (LTTR) values
- » CAN/ULC 5704, Type 2 & 3, Class 2

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. SecurShield NH is not compatible with hot mop 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.

### 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•m <sup>2</sup> ))
Water Absorption	ASTM C209	< 1% volume
Service Temperature		-100° to 250°F (-73°C to 122°C)

\*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.

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.

