

StormBase® POLYISO

Insulation



Overview

StormBase, formerly HP-NB, is a rigid-roof insulation composite panel composed of a closed-cell polyisocyanurate foam core bonded during the manufacturing process directly to 7/16" oriented strand board (OSB).

Features and Benefits

- » Environmentally friendly construction with 0% ozone-depleting components and CFC free
- » A superior combination of high-insulating properties and a resilient OSB surface, ideal for high-traffic roof installations
- » Utilized in projects requiring higher wind speed coverage
- » Composite of insulation and cover board saves handling and installation labor
- » Suitable for new construction and re-roofing on commercial projects
- » Incorporates APA-TECO-rated exposure 1 oriented strand board
- » StormBase is also available bonded to CDX plywood (various sizes), manufactured in an off-line process

Panel Characteristics

- » Available in 4' x 8' in thickness of 1 1/2" (38mm) to 4 1/2" (115 mm)
- » ASTM C1289, Type V designation
- » 4' x 8' boards routed on 4 sides
- » 4' x 4' boards routed on 3 sides
- » Routed to allow expansion and contraction of the wood
- » Typical thickness available: 1 1/2", 2", 2 1/2", 3", and 4"

Thermal Values

Thickness [†] (Inches)	Thickness [†] (MM)	LTR R-Value	Flute Spanability
1.50"	38	6.3	4 3/8"
2.00"	51	9.2	4 3/8"
2.50"	64	12.0	4 3/8"
3.00"	76	15.0	4 3/8"
3.50"	86	18.0	4 3/8"
4.00"	102	21.1	4 3/8"

[†] Thickness is calculated with 7/16" OSB.

Applications

Single-Ply Roof Systems

- » Mechanically Attached
- » Fully Adhered

Installation

Mechanically Attached Single-Ply Systems

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

StormBase 4' x 8' panels can be secured to the roof deck with Carlisle's FAST® Adhesive only when manufactured online, with either full coverage or bead spacing of no less than 6" on center.

StormBase 4' x 4' panels may be adhered to prepared concrete deck with a full mopping of Type III or IV asphalt only when manufactured online.

Review Carlisle specifications and details for complete installation information.

StormBase POLYISO

Insulation

StormBase Codes and Compliances

- » ASTM C1289, Type V designation
 - » International Building Code (IBC) Section 2603
- NOTE: Please be aware the Federal Specification HH-I-1972/GEN has been replaced.

Underwriters Laboratories, Inc.

- » Insulated metal deck assemblies - UL 1256 (nos. 120, 123, 292)
- » Component of Class A Roof Systems (UL 790)
- » Hourly Rated P series roof assemblies (UL 263) P 225, 230, 259, 302, 303, 508, 510, 514, 519, 701, 710, 713, 717, 718, 719, 720, 722, 723, 727, 728, 729, 730, 732, 734, 735, 739, 741, 742, 743, 819, 824, 827, 828
- » StormBase classified by ULC

Factory Mutual Research

- » FM Class 1 approval for steel roof-deck constructions, (FM 4450)
- » FM 4470
(Subject to the conditions of approval described in Roofnav.com)
- » FLORIDA BUILDING CODE APPROVAL FL#1296
- » MIAMI-DADE COUNTY, FLORIDA NOA NO: 04-1018.01

Precautions

StormBase 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. 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.

Fastening Guidelines

Carlisle requires the use of approved Carlisle fasteners and 3"-diameter plates for securement of the Carlisle StormBase composite board to the substrate. See the appropriate Carlisle Design Criteria specification for recommended fastening patterns.

Typical Properties and Characteristics (ASTM C1289) (Polyiso Foam Core Only)

Physical Property	Test Method	Value
Compressive Strength	ASTM D1621	20 psi minimum (138 kPa, Grade 2)
Dimensional Stability	ASTM D2126	2% linear change (7 days)
Moisture Vapor Permeance	ASTM E96	<1 perm (57.5 ng/(Pa•s•m ²))
Water Absorption	C1763	<1% volume

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.