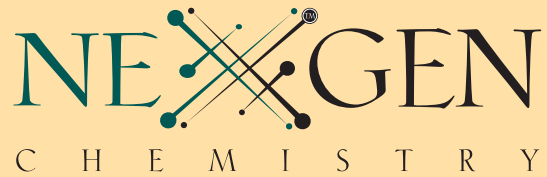


# H-SHIELD-NB

POLYISO BONDED TO ORIENTED STRAND BOARD



## PRODUCT DESCRIPTION

H-Shield-NB is a rigid roof insulation composite panel composed of a closed cell polyisocyanurate foam core bonded during the manufacturing process to fiber reinforced facers on one side and either 7/16" or 5/8" oriented strand board (OSB) on the other, or manufactured off-line using an FM approved glueing adhesive.

### FEATURES AND BENEFITS

- Manufactured with NexGen Chemistry™ - Zero ODP, CFC Free
- A superior combination of high insulating properties and/or nailable surface.
- Suitable for new construction and re-roofing on both commercial and residential projects.
- Incorporates APA-TECO Rated Exposure 1 Oriented Strand Board
- Manufactured on line with a routed edge to allow for expansion of the OSB
- Also available as a non-routed panel upon special request only.
- H-Shield NB is also available bonded to plywood (CDX and Firetreated available in 5/8" and 3/4") and is manufactured in an off-line process.
- Available with FSC Certified OSB or Plywood upon request.

### PANEL CHARACTERISTICS

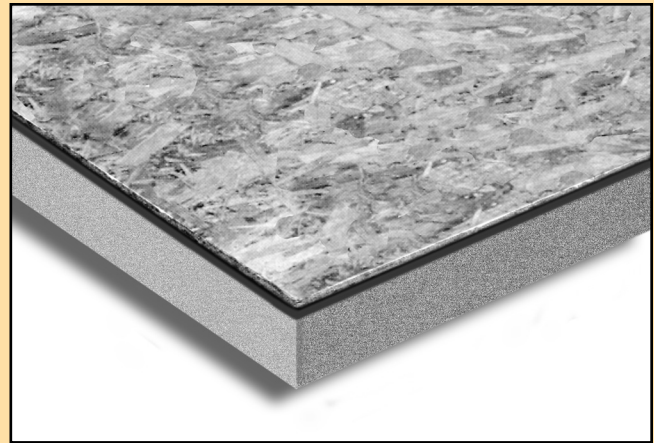
- Available size is 47 1/2"x 95 1/2" when routed on line. Thickness of 1.5" (38mm) to 4.5" (115mm)
- Available in 4'x8' when non-routed in thickness of 1.5" (38mm) to 4.5" (115mm).
- ASTM C1289-06, Type V,

### APPLICATIONS

- H-Shield-NB with 7/16" OSB is suitable for use with heavyweight shingles and standing seam metal roof systems.
- H-Shield-NB with 5/8" OSB is suitable for use with tile and slate roof systems.
- Single-Ply Roof Systems - Ballasted, Mechanically Attached, Fully Adhered. (For high wind speed warranty — see individual single-ply manufacturer approvals and listings.)

## VAPOR RETARDERS

The incorporation of a vapor barrier or retarder within the roofing assembly is highly recommended with the project is located in Zones 4 - 8 as determined by the International Code Council Dept. of Energy NW National lab of the United States (map located on [www.polyiso.org](http://www.polyiso.org)). Consult a licensed design professional, architect or engineer to establish whether or not a vapor barrier is necessary and to specify its type and location. This is especially important during the construction phase when excessive moisture drive is present. Hunter Panels recommends that a dew point calculation be performed prior to the installation of any product. This calculation is based on the buildings interior relative humidity, interior temperature conditions and outside temperature. Excessive moisture migration and temperature fluctuations during construction will potentially damage the system and cause unwanted condensation and aesthetic anomalies.



## H-SHIELD-NB THERMAL VALUES

THICKNESS (INCHES) (MM)	L T T R R VALUE*	FLUTE SPANABILITY
1.5" 38	6.60	4 3/8"
2.0" 51	9.60	4 3/8"
2.5" 64	12.70	4 3/8"
3.0" 76	15.90	4 3/8"
3.5" 86	19.10	4 3/8"
3.7" 89	20.40	4 3/8"
3.8" 96	21.00	4 3/8"
4.0" 102	22.30	4 3/8"
4.5" 115	25.60	4 3/8"

\*Long Term Thermal Resistance Foam Core Values are based on ASTM C1289-06 and CAN/ULC S770 which provides for a 15-year time weighted average. All PIMA members have adopted this advanced standard for R-value measurement as of 1/1/03.

## INSTALLATIONS

### SHINGLES, TILES, SLATE, METAL AND MEMBRANE ROOFING:

H-Shield-NB is installed, wood side up, over metal, wood or structural roof decks. Hunter SIP/NB Panel Fasteners are required to secure the H-Shield-NB to the roof deck. Wood blocking, if necessary should be equal in thickness to the H-Shield-NB, is installed along the eaves and rake edges of the roof. The roofing system is then installed according to the manufacturers recommendations.

## H-SHIELD-NB CODES AND COMPLIANCES

### FEDERAL SPECIFICATIONS

- ASTM C1289-06, Type V
- National Building Code (1998) Section 2603 Building Officials and Code Administration International, Inc.

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

### UNDERWRITERS LABORATORIES, INC.

- Component of Class A Roof Systems (UL 790)
- Hourly Rated P series roof assemblies (UL 263 foam core only) P 225, 230, 232, 259, 508, 510, 514, 519, 701, 713, 717, 718, 719, 720, 722, 723, 724, 727, 728, 729, 730, 732, 734, 735, 739, 801, 814, 815, 818, 819, 823, 824, 826, 827, 828, 832.
- Insulated metal deck assemblies - UL 1256 (nos. 120, 123)
- H-Shield-NB classified by ULC
- R18846
- TGDY. R20624 Shingle Deck Accessory; H Shield-NB roof insulation is classified for use with any Class A, B, or C asphalt glass mat or asphalt organic shingles, metal or tile roof coverings.

### FACTORY MUTUAL RESEARCH

- FM 4450, FM 4470 (Foam Core Only)
- FM Class 1 approval for steel roof deck constructions, Class 1 Fire and 1-60 and 1-90 windstorm classification (FM 4450).  
(Subject to the conditions of approval described in the current Factory Mutual Approval Guide and Supplements)

**NEW FLORIDA BUILDING CODE: FL 5968 (OLD #1296)**  
**MIAMI-DADE COUNTY, FLORIDA NOA NO: 04-1018.01, EXPIRATION: 01-14-10**

## WARNINGS AND LIMITATIONS

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. Hunter Panels will not be responsible for specific building and roof design by others, for deficiencies in construction or workmanship, for dangerous conditions on the job site 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 Hunter Panels for more specific details, or refer to PIMA Technical Bulletin No. 109: *Storage & Handling Recommendations for Polyiso Roof Insulation.*



## FASTENING GUIDELINES

- Hunter Panels requires the use of the Hunter Panel SIP/SD Panel Fastener for steel deck applications and the SIP/WD for wood deck applications. See Installation Guide for recommended fastening patterns.

## TYPICAL PHYSICAL PROPERTY DATA CHART POLYISO FOAM CORE ONLY

PROPERTY	TEST METHOD	VALUE
Compressive Strength	ASTM D 1621 ASTM 1289-06	20 psi* minimum (138kPa)
Dimensional Stability	ASTM D 2126	2% linear change (7 days)
Moisture Vapor Transmission	ASTM E 96	< 1 perm ((57.5ng/(Pa•s•m²))
Water Absorption	ASTM C 209	< 1% volume
Flame Spread (foam core)	ASTM E 84	< 50
Smoke Developed	ASTM E 84	<135
Service Temperature		-100° to 250° F (-73°C to 122°C)

\*Also available in 25 PSI Minimum

## OTHER PRODUCTS BY HUNTER:

- ÆH-Shield FLAT POLYISO
- ÆH-Shield-WF POLYISO BONDED TO WOOD FIBERBOARD
- ÆH-Shield-F POLYISO BONDED TO FOIL
- ÆH-Shield-CG POLYISO BONDED TO COATED GLASS FACER
- ÆH-Shield-AGF POLYISO BONDED TO AGF FACER
- ÆH-Shield-DD POLYISO BONDED TO DENSDECK
- ÆH-Shield-DDP POLYISO BONDED TO PRIMED DENSDECK
- ÆH-Shield-DWD POLYISO BONDED TO COATED GLASS FACER FOR DIRECT TO WOOD DECK APPLICATIONS
- ÆTapered H-Shield TAPERED POLYISO
- ÆTapered H-Shield-WF TAPERED POLYISO BONDED TO WOOD FIBERBOARD
- ÆTapered H-Shield-CG TAPERED POLYISO BONDED TO COATED GLASS FACER
- ÆCool-Vent VENTILATED NAILBASE INSULATION PANEL
- ÆCool-Vent II VENTILATED NAILBASE INSULATION PANEL

# H U N T E R

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FRANKLIN PARK, IL  
LAKE CITY, FL

TERRELL, TX  
TOOELE, UT  
SMITHFIELD, PA