H-Shield

Flat Polyiso

NEXGEN CHEMISTRY

Product Description

H-Shield is a rigid roof insulation panel composed of a closed cell polyisocyanurate foam core bonded on each side to fiber reinforced facers.

Features and Benefits

- Manufactured with NexGen Chemistry™ - Zero ODP, CFC Free, EPA Compliant.
- Approved for direct application to steel decks.
- Approved under all major roof covering systems – BUR, Modified and Single Ply.

Panel Characteristics

- Available in 4'x4' (1220mm x 1220mm) and 4'x8' (1220mm x 2440mm) panels in thickness of 1"(25mm) to 4.0" (102mm)
- Available in two grades of compressive strengths per ASTM C1289-05a, Type II, Class 1, Grade 2 (20 psi), Grade 3 (25 psi).

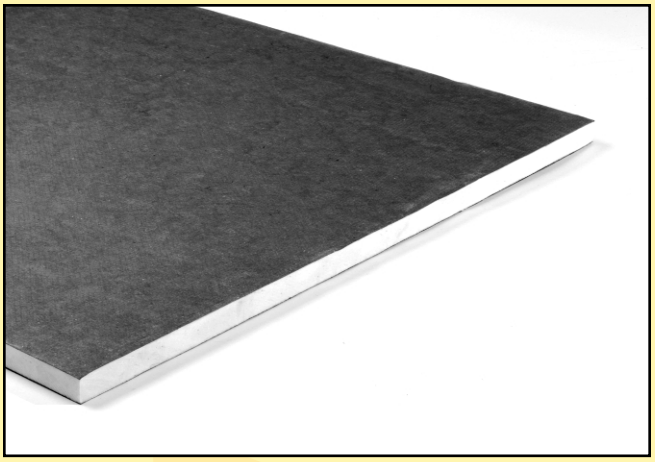
Applications

- Constructions requiring FM Class 1 and UL Class A ratings
- Single-Ply Roof Systems (Ballasted, Mechanically Attached, Fully Adhered)
- Modified Bitumen Systems
- Built-Up Roofing: Asphalt and Coal Tar

H-Shield Thermal Values

THICKNESS (INCHES)	(MM)	LTTR R VALUE*	FLUTE SPANABILITY
1.00"	25	6.00	2 5/8"
1.50"	38	9.00	4 3/8"
1.60"	41	9.60	4 3/8"
1.70"	43	10.30	4 3/8"
1.80"	46	10.90	4 3/8"
2.00"	51	12.10	4 3/8"
2.50"	64	15.30	4 3/8"
2.70"	69	16.60	4 3/8"
3.00"	76	18.50	4 3/8"
3.10"	79	19.10	4 3/8"
3.30"	84	20.40	4 3/8"
3.50"	89	21.70	4 3/8"
3.60"	91	22.40	4 3/8"
3.70"	94	23.00	4 3/8"
4.00	102	25.00	4 3/8"

*Long Term Thermal Resistance Foam Core Values are based on ASTM C1289-05a 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.



Installation

Built Up, Coal Tar And Modified Bitumen Systems

Each H-Shield panel must be secured to the roof deck with Factory Mutual approved fasteners and plates (appropriate to the deck type). Maximum 4'x4' (1220mm x 1220mm) panels of H-Shield may be adhered to a prepared concrete deck with a full mopping of hot steep asphalt. Application by cold adhesion also approved. Butt edges and stagger joints of adjacent panels. Install the roof covering according to the manufacturer's specifications.

Single Ply Systems

Balasted Single Ply Systems

Each H-Shield panel is loosely laid on the roof deck. Butt edges and stagger joints of adjacent panels. Install the roof covering according to the manufacturer's specifications.

Mechanically Attached Single Ply Systems

Each H-Shield panel must be secured to the roof deck with Factory Mutual approved fasteners and plates (appropriate to the deck type). Butt edges and stagger joints of adjacent panels. Install the roof covering according to the manufacturer's specifications.

Fully Adhered Single Ply

Each H-Shield panel must be secured to the roof deck with Factory Mutual approved fasteners and plates (appropriate to the deck type). Maximum 4'x4'(1220mm x 12 20mm) panels of H-Shield may be adhered to a prepared concrete deck with a full mopping of hot steep asphalt. Application by cold adhesion also approved. Butt edges and stagger joints of adjacent panels. Install the roof covering according to the manufacturer's specifications.

HUNTER *Energy Smart Polyiso*

H-SHIELD
CODES AND COMPLIANCES

Federal Specifications

- ASTM C1289-05a, Type II, Class 1, Grade 2 (20 psi), Grade 3 (25 psi)
- 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 classified by ULC
- R18846

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)*

FLORIDA BUILDING CODE APPROVAL FL#1296
MIAMI-DADE BUILDING CODE COMPLIANCE NOA NO: 04-1018.01

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*.

TYPICAL PHYSICAL PROPERTY DATA CHART
POLYISO FOAM CORE ONLY

PROPERTY	TEST METHOD	VALUE
Compressive Strength	ASTM D 1621 ASTM 1289-05a	20 psi* minimum (138kPa, Grade 2)
Dimensional Stability	ASTM D 2126	2% linear change (7 days)
Moisture Vapor Transmission	ASTM E 96	< 1 perm ((57.5ng/(Pa•s•m^2))
Water Absorption	ASTM C 209	< 1% volume
Flame Spread (foam core)	ASTM E 84	< 50
Service Temperature		-100° to 250° F (-73°C to 122°C)

* Also available in 25 psi minimum, Grade 3

OTHER PRODUCTS BY HUNTER:

- **H-Shield-NB** *POLYISO BONDED TO ORIENTED STRAND BOARD*
- **H-Shield-WF** *POLYISO BONDED TO WOOD FIBERBOARD*
- **H-Shield-F** *POLYISO BONDED TO FOIL*
- **H-Shield-CG** *POLYISO BONDED TO COATED GLASS FACER*
- **H-Shield-AGF** *POLYISO BONDED TO AGF FACER*
- **H-Shield-DD** *POLYISO BONDED TO DENSDECK*
- **H-Shield-DDP** *POLYISO BONDED TO PRIMED DENSDECK*
- **Tapered H-Shield** *TAPERED POLYISO*
- **Tapered H-Shield-WF** *TAPERED POLYISO BONDED TO WOOD FIBERBOARD*
- **Tapered H-Shield-CG** *TAPERED POLYISO BONDED TO COATED GLASS FACER*
- **Cool-Vent** *VENTILATED NAILBASE INSULATION PANEL*
- **Cool-Vent II** *VENTILATED NAILBASE INSULATION PANEL*

H-SHIELD *FLAT POLYISO*

FM APPROVED

CLASSIFIED UL · PIMA Polyisocyanurate Insulation Manufacturers Association · U.S. Green Building Council · Energy Star EPA DOE

PIMA QualityMark℠ The Certified LTTR-value

Sustainable Buildings Industry Council

HUNTER

Energy Smart Polyiso

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