H-SHIELD HD

½" High-Density Polyisocyanurate Cover Board

TECHNICAL DATA SHEET

H-Shield HD is a ½" thick high-density polyiso insulation panel specifically designed for use as a cover board. It is manufactured on-line to a premium performance coated glass facer on both sides (CGF). H-Shield HD delivers an R-value of 2.5 in its ½" profile; significantly higher than roof cover boards made with other materials such as wood fiber or gypsum.

APPLICATIONS

- Constructions requiring FM Class 1 and UL Class A ratings
- Compatible with Single-Ply Roofing Systems (fully adhered and mechanically attached)
- Modified Bitumen Roofing Systems
- Suitable for use with approved fasteners and plates, also cold applied and low-rise adhesives

PANEL CHARACTERISTICS

- Manufactured using premium performance coated glass facer with white on one side of the board and dark on the other side, allowing the installer to choose which side to install up to control flash-off times in fully adhered applications. For all other applications the facer performance is unchanged.
- Manufactured with NexGen Chemistry: Contains no CFCs, HFCs, HCFCs, is Zero ODP, EPA Compliant, and has virtually no GWP
- 4 lbs/pcf high density foam core provides enhanced physical properties
- Lightweight (11 lbs per 4' x 8' panel); easy to cut, handle and install
- Sturdy constitution and durability protects the roof system from effects of hail, roof top construction traffic and other potentially damaging elements
- Available in ½" 4' x 8' (1220mm x 2440mm) and 4' x 4' (1220mm x 1220mm) panels

POTENTIAL LEED CREDITS FOR POLYISO USE

Energy and Atmosphere

- Optimize Energy Performance

Materials & Resources

- Building Life-Cycle Impact Reduction
- Environment Product Declaration
- Material Reuse
- Pre-consumer Recycled Content
- Construction and Demolition Waste Management

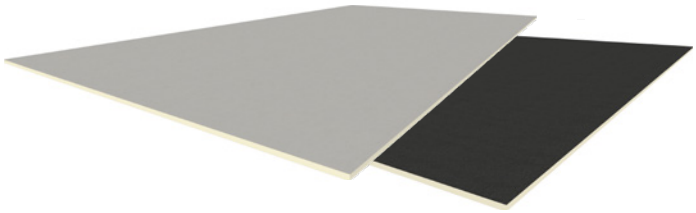
Indoor Environmental Quality

- Thermal Comfort

POLYISO ECO READY (OPTIONAL)

- 5% bio-content option available
- Contributes to carbon reduction initiatives via mass balance approach under ISCC PLUS compliance

ReadyFlash TECHNOLOGY



H-SHIELD HD THERMAL VALUES

Tested in accordance with ASTM C518

Thickness (inches)	Thickness (mm)	R-Value
0.5	13	2.5

CODES AND COMPLIANCES

- Achieves a UL 790 Class A combustible deck assembly rating at ½" thickness without the use of a fire-rated slip sheet or the presence of a fire barrier. Insulation joints must be staggered a minimum of 12" from the combustible deck joints. Maximum roof slope = 1:12
- Passed (10) ASTM D 3273 Resistance to Mold Test
- Hail Rating: SH-1
- ASTM C 1289 Type II, Class 4, Grade 1 (109 psi max)
- UL Classified 790
- UL Class A
- ASTM E 108
- FM Approved – consult RoofNav for specific assemblies
- FM Approved 1-75
- Miami Dade County Product Control Approved
- State of Florida Product Approval No. FL 5968
- California Code of Regulations, Title 24, Insulation Quality
- Standard License #TI-1420

UL CLASSIFIED FOR USE IN CANADA

- Refer to UL Directory of Products Certified for Canada for more details
- UL Certified for Canada, CAN/ULC-S126, CAN/ULC- S107
- CAN/ULC-S704 Type 3 Class 2

TYPICAL PHYSICAL PROPERTY DATA

Per ASTM C 1289 – Polyiso Foam Core Only

Physical Property	Test Method	Value
Compressive Strength	ASTM D 1621	Grade 1 (109 psi max)
Dimensional Stability	ASTM D 2126	<0.5% linear change (7 days)
Water Absorption	ASTM C 209	<1% volume
Flame Spread*	ASTM E 84	< 75
Smoke Developed*	ASTM E 84	< 450
Service Temperature	–	260°F or less
Recycle Content		9% pre-consumer

*Meets the requirements of the IBC code. For specific Flame Spread or Smoke Developed Ratings please contact the Hunter Panels Technical Department

WARNINGS AND LIMITATIONS

Insulation must be protected from open flame and kept dry at all times. Store above ground on pallets and cover with breathable tarpaulins. Install only as much Polyiso as can be covered the same day with the completed roofing system. Do not leave exposed. Hunter Panels will not be responsible for specific designs by others, for deficiencies in construction or workmanship, for dangerous conditions on the job site or for improper storage and handling.

INSTALLATION – SINGLE-PLY SYSTEMS

Ballasted Single-Ply Systems

Each H-Shield HD panel should be loosely laid as a cover board over either an existing roof system or base layers of insulation 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 HD panel should be secured as a cover board over either an existing roof system or base layers of insulation. 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 HD panel should be secured as a cover board over either an existing roof system or base layers of insulation. H-Shield HD may be adhered to a prepared concrete deck or subsequent layers of insulation with a full mopping of hot steep asphalt, insulation adhesive or cold applied mastic. Butt edges and stagger joints of adjacent panels. Install the roof covering according to the manufacturer's specifications.

Re-Roofing Single-Ply Systems

H-Shield HD provides a singular and sustainable solution in retrofit applications when existing insulation is left in place. To facilitate compliance with ASHRAE 90.1 Standards for energy efficiency, H-Shield HD can be installed in a single layer on top of intact and dry insulation after the Single-Ply membrane is removed. Butt edges and stagger the joints in accordance with good roofing practice and fasten as per manufacturer's specifications. The new Single-Ply membrane can then be installed over an insulation assembly that complies with the latest energy code requirements.

INSTALLATION – BUILT UP, COAL TAR AND MODIFIED BITUMEN SYSTEMS (APP, SBS)

Each H-Shield HD panel should be secured as a cover board over either an existing roof system or base layers of insulation. H-Shield HD may be adhered to a prepared concrete deck or subsequent layers of insulation with a insulation adhesive or cold applied mastic. Butt edges and stagger joints of adjacent panels. Install the roof covering according to the manufacturer's specifications.

Review manufacturer's specifications and details for complete installation information.

FASTENING REQUIREMENTS*

FM Rating	Thickness (inches)	# of Fasteners per 4x8		
		Field	Perimeter	Corner
1-75	0.5	12	16	24
1-90	0.5	16	*	*

*Contact your membrane manufacturer for their specific fastening requirements.