

# H-SHIELD CG *Flat Premium Performance Faced Polyisocyanurate Insulation*

H-Shield CG

## PRODUCT DESCRIPTION

H-Shield CG is a rigid roof insulation panel composed of a closed cell polyisocyanurate foam core manufactured on-line to a premium performance coated glass facer on both sides (CGF).

## PREMIUM PERFORMANCE ATTRIBUTES

- Manufactured with NexGen Chemistry: Contains no CFCs, HCFCs, HFCs, is Zero ODP, EPA Compliant, and has virtually no GWP
- Provides improved dimensional stability, fire performance and resistance to mold growth. Passed (10) Resistance to Mold test ASTM D 3273
- Achieves a UL Class A combustible deck assembly rating without the use of a fire rated slip sheet or gypsum cover board when applied at a thickness of 1" or greater. Insulation joints must be staggered a minimum of 12" from the combustible deck joints. Maximum roof slope = 1/2":12"

## PANEL CHARACTERISTICS

- Available in 4'x4' (1220mm x 1220mm) and 4'x8' (1220mm x 2440mm) panels in thicknesses of 1" (25mm) to 4.5" (114mm)
- ASTM C 1289 Type II, Class 2 Grade 2 (20 psi) or Grade 3 (25 psi)

## ROOFING APPLICATIONS

- Specified for Single-Ply membranes (Ballasted, Mechanically Attached and Fully Adhered), BUR, Modified Bitumen, Coal-Tar
- Constructions requiring UL Class A ratings

## H-SHIELD CG THERMAL VALUES

THICKNESS (INCHES) (MM)	LTTTR R VALUE*	FLUTE SPANABILITY
1.00 25	5.7	2 5/8"
1.50 38	8.6	4 3/8"
1.80 46	10.3	4 3/8"
2.00 51	11.4	4 3/8"
2.50 64	14.4	4 3/8"
2.60 66	15.0	4 3/8"
3.00 76	17.4	4 3/8"
3.50 89	20.5	4 3/8"
3.80 97	22.3	4 3/8"
4.00 102	23.6	4 3/8"
4.30 109	25.5	4 3/8"
4.50 114	26.8	4 3/8"

\*Long Term Thermal Resistance Values are based on ASTM C 1289.

## Codes and Compliances

- ASTM C 1289 Type II, Class 2 Grade 2 (20 psi) or Grade 3 (25 psi)
- International Building Code (IBC) Chapter 26
- State of Florida Product Approval Number FL 5968
- California Code of Regulations, Title 24, Insulation Quality Standard License #TI-1420
- Miami Dade County Product Control Approved

## Underwriters Laboratories Inc Classifications

- UL Class A at 1" thickness
- UL 1256
- Insulated Steel Deck Construction Assemblies – No. 120, 123, 292
- UL 790
- UL 263 Hourly Rated P Series Roof Assemblies

## UL Classified for use in Canada

- Refer to UL Directory of Products Certified for Canada for more details
- CCMC 13460-L
- UL Certified for Canada, CAN/ULC-S126, CAN/ULC-S101, CAN/ULC-S107
- CAN/ULC-S704 Type 2, Class 3 (20 psi) or Type 3, Class 3 (25 psi)

## Factory Mutual Approvals

- FM 4450, FM 4470
- Approved for Class 1 insulated steel, concrete, and gypsum roof deck constructions for 1-60 to 1-270. Refer to FM Approval's RoofNav for details on specific systems

## LEED Potential Credits for Polyiso Use

### Energy and Atmosphere

- Optimize Energy Performance

### Materials & Resources

- Building Life-Cycle Impact Reduction
- Environmental Product Declarations
- Materials Reuse
- 9% Pre-consumer Recycled Content
- Construction and Demolition Waste Management



## TYPICAL PHYSICAL PROPERTY DATA CHART PER ASTM C 1289 – POLYISO FOAM CORE ONLY

PROPERTY	TEST METHOD	VALUE
Compressive Strength	ASTM D 1621	20 psi* (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 <sup>2</sup> ))
Water Absorption	ASTM C 209	< 1% volume
Flame Spread**	ASTM E 84	< 75
Smoke Developed**	ASTM E 84	< 450
Service Temperature	-	-100° to 250° F (-73°C to 122°C)
Recycled Content		9% - pre-consumer

\*Also available in 25 psi, Grade 3

\*\*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. 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. For more information refer to the Storage and Handling Technical Bulletin at [www.hunterpanels.com](http://www.hunterpanels.com), or refer to PIMA Technical Bulletin No. 109: *Storage & Handling Recommendations for Polyiso Roof Insulation* at [www.polyiso.org](http://www.polyiso.org).

## INSTALLATION

### Single-Ply Systems

#### Ballasted Single-Ply

H-Shield CG panels are loosely laid on the roof deck. Butt the edges of the insulation panels and stagger the joints. Install the roof covering according to the manufacturer's specifications.

#### Mechanically Attached Single-Ply Systems

H-Shield CG must be secured to the roof deck. Butt the edges of the insulation panels and stagger the joints. Install the roof covering according to the manufacturer's specification.

#### Fully Adhered Single-Ply

Each H-Shield CG panel must be secured to the roof deck. Maximum 4'x4' (1220mm x 1220mm) panels of H-Shield CG 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.

### Built Up, Coal Tar And Modified Bitumen Systems (APP, SBS)

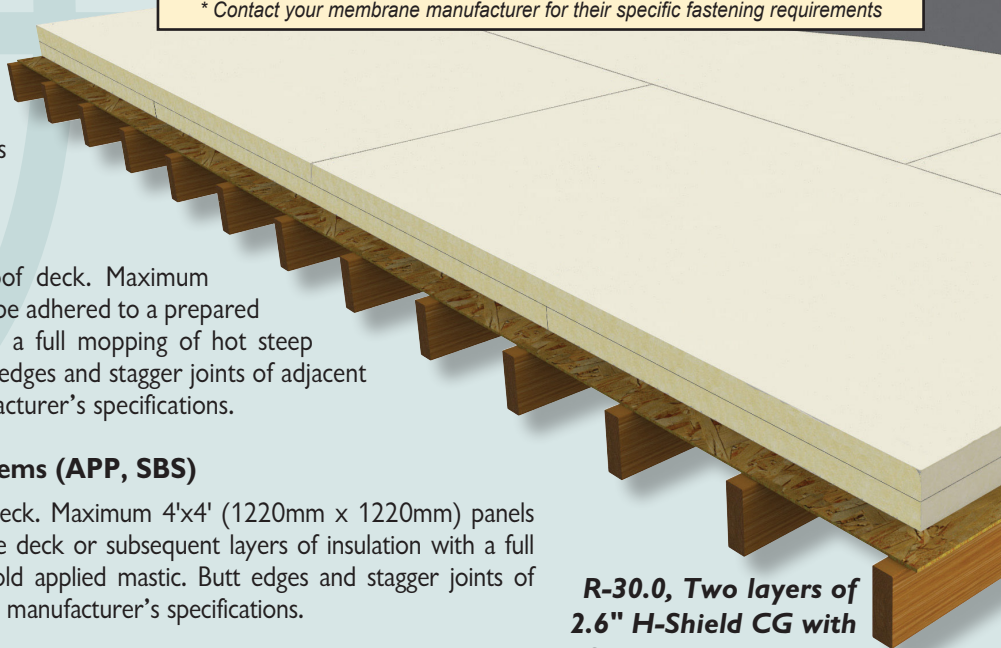
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To achieve optimal thermal performance, Hunter Panels recommends installation of a multi-layer system with staggered joints.

## FASTENING REQUIREMENTS\*

FM RATING	MINIMUM THICKNESS	#OF FASTENERS PER 4X8		
		FIELD	PERIMETER	CORNER
1-60	2.0	8	20	20
1-75	2.0	8	20	32
1-90	2.0	8	20	32
1-105	2.0	12	24	32
1-150	2.0	20	32	
1-270	2.0	32		

\* Contact your membrane manufacturer for their specific fastening requirements



**R-30.0, Two layers of 2.6" H-Shield CG with Single-Ply membrane**

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