H-Shield F is a rigid roof insulation panel composed of a closed cell polyisocyanurate foam core manufactured on-line to an impermeable foil facer on both sides.

FEATURES AND BENEFITS
- Manufactured with NexGen Chemistry: Contains no CFCs, HCFCs, is Zero ODP, EPA Compliant, and has virtually no GWP
- Approved for direct application to steel decks
- Approved for Ballasted and Mechanically Attached Single-Ply

PANEL CHARACTERISTICS
- Available in two grades of compressive strengths per ASTM C 1289 Type I, Class 1 Grade 2 (20 psi) or Grade 3 (25 psi)
- Available in 4’x4’ (1220mm x 1220mm) and 4’x8’ (1220mm x 2440mm) panels in thicknesses of 1” (25mm) to 4” (102mm)

APPLICATIONS
- Constructions requiring FM Class 1 and UL Class A ratings
- Single-Ply Roof Systems (Ballasted, Mechanically Attached)

H-SHIELD F THERMAL VALUES

<table>
<thead>
<tr>
<th>THICKNESS (INCHES)</th>
<th>THICKNESS (MM)</th>
<th>R VALUE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>25</td>
<td>6.5</td>
</tr>
<tr>
<td>1.50</td>
<td>38</td>
<td>10.0</td>
</tr>
<tr>
<td>2.00</td>
<td>51</td>
<td>13.3</td>
</tr>
<tr>
<td>2.30</td>
<td>58</td>
<td>15.5</td>
</tr>
<tr>
<td>2.50</td>
<td>64</td>
<td>17.0</td>
</tr>
<tr>
<td>3.00</td>
<td>76</td>
<td>20.3</td>
</tr>
<tr>
<td>3.50</td>
<td>89</td>
<td>24.0</td>
</tr>
<tr>
<td>3.70</td>
<td>94</td>
<td>25.2</td>
</tr>
<tr>
<td>4.00</td>
<td>102</td>
<td>27.0</td>
</tr>
</tbody>
</table>

*Initial thermal values are determined by using ASTM C518 at 75°F mean temperature and are typical values for impermeable faced products.

Codes and Compliances
- ASTM C 1289 Type I, Class 1 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
- CCMC 13460-L Type 2, Class 1

Underwriters Laboratories Inc Classifications
- 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

Factory Mutual Approvals
- FM 4450, FM 4470
- Approved for Class 1 insulated steel 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
- Measurement & Verification

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

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Single-Ply Systems

Ballasted Single-Ply Systems

Each H-Shield F 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 F 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 covering according to the manufacturer’s specifications.

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

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, or refer to PIMA Technical Bulletin No. 109: Storage & Handling Recommendations for Polyiso Roof Insulation at www.polyiso.org.

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

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST METHOD</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive Strength</td>
<td>ASTM D 1621</td>
<td>20 psi* (138kPa, Grade 2)</td>
</tr>
<tr>
<td>Dimensional Stability</td>
<td>ASTM D 2126</td>
<td>2% linear change (7 days)</td>
</tr>
<tr>
<td>Moisture Vapor Transmission***</td>
<td>ASTM E 96</td>
<td>&lt;0.05 perm (2.875ng/(Pa•s•m²))</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>ASTM C 209</td>
<td>&lt; 0.05% volume</td>
</tr>
<tr>
<td>Flame Spread**</td>
<td>ASTM E 84</td>
<td>&lt; 75</td>
</tr>
<tr>
<td>Smoke Developed**</td>
<td>ASTM E 84</td>
<td>&lt; 450</td>
</tr>
<tr>
<td>Service Temperature</td>
<td>–</td>
<td>-100° to 250° F (-73°C to 122°C)</td>
</tr>
<tr>
<td>Recycled Content</td>
<td>–</td>
<td>9% - pre-consumer</td>
</tr>
</tbody>
</table>

*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
***Tested with foam and facer