SecurShield™ HD Composite Insulation

Overview
SecurShield HD Composite is a unique composite insulation panel comprised of ½” high-density polyiso cover board laminated to SecurShield rigid polyiso roof insulation. This product is ideal for commercial roofing projects that require high thermal efficiency combined with maximum durability in both new construction and retrofit applications.

Features and Benefits
- SecurShield HD Composite is produced on-line creating a single component solution that eliminates the need for cover boards, reduces inter-ply adhesives and saves labor
- Passes ASTM resistance to mold test (D 3273)
- Achieves Factory Mutual Severe Hail rating - SH 1
- Available in thicknesses from 1.5” to 4.5” for a total R-value of 8.2 to 26.1 in a single layer
- Available in 4’ x 4’ (1220 mm x 1220 mm) and 4’ x 8’ (1220 mm x 2440 mm) panels
- Standard thicknesses: 1½”, 2”, 2½”, 3”, and 4”
- Coverboard-SecurShield HD: ASTM C 1289 Type II, Class 4, Grade 1 (109 psi max)
- Base Insulation-SecurShield: ASTM C 1289 Type II, Class 2, Grade 2 (20 psi)

Productivity Boosting Features and Benefits:
- Cover board and insulation combined in a single product
- Eliminates adhesive layer between base insulation and cover board
- Industry-leading 6 fastener FM 1-90 approval rating

Code Approvals
- International Building Code (IBC) Chapter 26
- UL 790, 1256, 263 Hourly Rated P Series Roof Assemblies
- Insulated Metal Deck Construction Assemblies – No. 120, 123, 292
- Refer to UL Directory of Products Certified for Canada for more details
- 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

Installation
Single-Ply Systems
Mechanically Attached Single-Ply Systems
Each SecurShield HD Composite 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 single-ply roof system according to Carlisle’s specifications.

Fully Adhered Single-Ply
Each SecurShield HD Composite panel must be secured to the roof deck with fasteners and plates (appropriate to the deck type). Maximum 4’ x 4’ (1220 mm x 1220 mm) panels of SecurShield HD Composite 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 single-ply roof system according to Carlisle’s specifications.
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Re-Roofing Single-Ply Systems
SecurShield HD Composite provides a singular solution in retrofit applications when existing insulation is left in place. To facilitate compliance with ASHRAE 90.1 Standards for energy efficiency, SecurShield HD Composite 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 Carlisle’s specifications. The new single-ply membrane can then be installed over an insulation assembly that complies with the latest energy code requirements.

Review Carlisle specifications and details for complete installation information.

Precautions
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. Protect installed product from excessive foot traffic. Carlisle will not be responsible for specific building and roof design by others, for deficiencies in construction or workmanship, for dangerous conditions on the jobsite 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 Carlisle for more specific details, or refer to PIMA Technical Bulletin No. 109: Storage & Handling Recommendations for Polyiso Roof Insulation.

SecurShield HD Composite Thermal Values

<table>
<thead>
<tr>
<th>Thickness (Inches)</th>
<th>Thickness (MM)</th>
<th>LTR R-value</th>
<th>Flute Spanability</th>
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</thead>
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<tr>
<td>1.50</td>
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<tr>
<td>4.50</td>
<td>114</td>
<td>26.1</td>
<td>4 1/8”</td>
</tr>
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</table>

SecurShield HD Composite R-value is calculated by adding together the R-values of SecurShield HD and SecurShield.

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