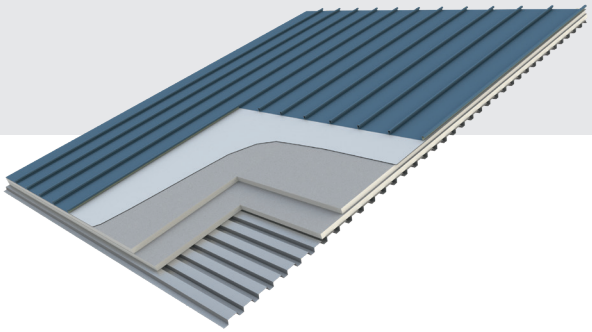
PAC-Shield Coated Glass

Energy Smart Polyiso

PAC-CLAD PETERSEN
A CARLISLE COMPANY

Flat Premium Performanced Faced
Polyisocyanurate Insulation



PAC-Shield Coated Glass 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). Manufactured using ReadyFlash® Technology, with light and dark facers This provides the installer a choice of top side colors to better control flash-off times in fully adhered applications.

APPLICATIONS

- **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"
- Specified for Single-Ply membranes (Ballasted, Mechanically Attached and Fully Adhered), BUR, Modified Bitumen, Coal-Tar
- Constructions requiring UL Class A ratings
- To achieve optimal thermal performance, PAC-CLAD recommends installation of a multi-layered system with staggered joints.

PANEL CHARACTERISTICS

- **Manufactured with NexGen Chemistry:** Contains no CFCs, HCFCs, 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
- Manufactured with a light and dark side that allows for faster or slower adhesive flash-off times
- Available in 4' x 4' (1220mm x 1220mm) and 4' x 8' (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)

POTENTIAL LEED® CREDITS FOR POLYISO USE

Energy and Atmosphere

- Optimize Energy Performance

Materials & Resources

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

Indoor Environmental Quality

- Thermal Comfort

THERMAL VALUES

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

Thickness (inches)	Thickness (mm)	LTTR 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"

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
- ICC-ES ESR-1608

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

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

TYPICAL PHYSICAL PROPERTY DATA

Polyiso Foam Core Only

Physical Property	Test Method	Value
Compressive Strength	ASTM D 1621	20 psi* minimum (138 kPa, Grade 2)
Dimensional Stability	ASTM D 2126	2% linear change (7 days)
Moisture Vapor Transmission	ASTM E 96	<1 perm (57.5ng/(Pa·s·m²))
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)

*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 PAC-CLAD 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. PAC-CLAD 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

PAC-Shield Coated Glass panels are loosely laid on the roof deck. Butt the edges of the insulation panels and stagger the joints. Install the roof covering according tothe manufacturer's specifications.

Mechanically Attached Single-Ply Systems

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

Fully Adhered Single-Ply

Each PAC-Shield Coated Glass panel must be secured to the roof deck. Maximum 4' x 4' (1220mm x 1220mm) panels of PAC-Shield Coated Glass 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.

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

Each PAC-Shield Coated Glass panel must be secured to the roof deck. Maximum 4' x 4' (1220mm x 1220mm) panels of PAC-Shield Coated Glass 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.

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