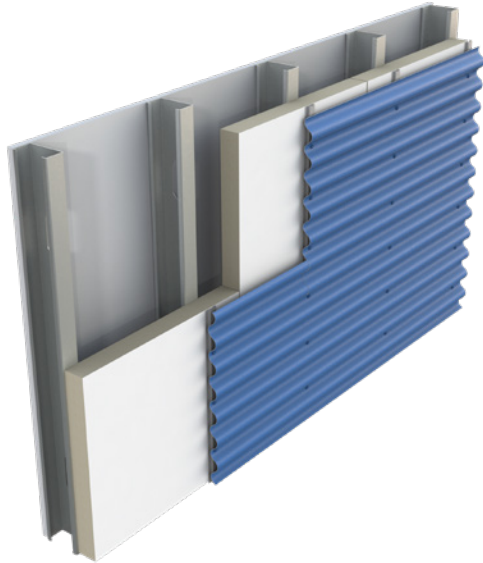


DEFEND-R CI COATED GLASS

POLYISOCYANURATE INSULATION MANUFACTURED ON-LINE TO COATED GLASS FACERS FOR EXTERIOR COMMERCIAL WALL APPLICATIONS



Defend-R CI Coated Glass is an energy efficient rigid insulation panel composed of a closed cell polyisocyanurate foam core combined with a premium performance coated glass facer. The panel has a light color face on one side and a dark color face on the other side. It is designed for use in commercial wall applications to provide continuous insulation within the building envelope.

APPLICATIONS

- Can be installed directly on steel studs in a variety of wall assemblies without the need for gypsum sheathing
- Provides continuous insulation (ci) for standard wood frame, FRT wood frame, steel stud, CMU and concrete exterior wall constructions
- Compatible with numerous claddings/finishes including masonry, fiber cement, stucco, terra cotta, mcm, metal, natural stone and EIFS
- Underslab, below-grade and sandwich panel applications
- Light or dark side may face outward
- Darker color may be desired behind certain claddings and/or joint systems
- Can be applied to the exterior or interior of exterior walls, when separated from the interior by a 15-minute thermal barrier. Please contact Drexel Metals for more information regarding interior applications that require NFPA 285 compliance

PANEL CHARACTERISTICS

- Manufactured with NexGen Chemistry: Zero Ozone Depleting Potential (ODP); Contains no CFCs, HCFCs or HFCs; Virtually zero Global Warming Potential (GWP). Use of Drexel Metals products helps reduce the carbon footprint of buildings.
- Superior fire performance, durability, dimensional stability, and resistance to mold growth
- Polyiso offers increased R-value per inch vs mineral fiber, XPS or EPS options
- Provides R-values from 6.0 – 25.0 in a single layer
- ASTM C 1289 Type II, Class 2 Grade 2 (20 psi) or Grade 3 (25 psi)
- Available in 4' x 8' (1220mm x 2440mm) panels in thickness of 1" (25mm) – 4" (102mm)
- Other widths/lengths are available upon special request

DEFEND-R CI COATED GLASS

DEFEND-R CI COATED GLASS THERMAL VALUES

Long Term Thermal Resistance Values are based on ASTM C 1289

Thickness		LTTR R-Value
(inches)	(mm)	
1.00	25	6.0
1.50	38	9.0
1.70	43	10.0
2.00	51	12.1
2.50	64	15.3
3.00	76	18.5
3.50	89	21.7
4.00	102	25.0

LEED® POTENTIAL CREDITS FOR POLYISO USE

Energy and Atmosphere

- Optimize Energy Performance

Materials and Resources

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

Indoor Environmental Quality

- Thermal Comfort

INSTALLATION

- Defend-R CI Coated Glass is not a structural sheathing; exterior cladding must be attached through to the framing
- Always follow local codes for structural bracing
- Refer to local codes and practices for placement of the WRB in the wall assembly
- Follow cladding manufacturer's recommendation for attachment requirements
- Insulation installation may require separate fasteners or adhesives depending on the exterior cladding attachment
- Adhesives can be used for attachment to CMU, gypsum and concrete
- Metal furring strips can be installed on the exterior, fastened through the insulation to the structural wall to create a drainage plane
- Defend-R CI Coated Glass is compatible with most construction grade adhesives, sealants, caulks, tapes, and spray foams

POST-INSTALLATION EXPOSURE

During the time frame between installation of Defend-R CI Coated Glass and the application of the finished exterior cladding, it is recommended that a building wrap be applied to the Defend-R CI Coated Glass. If a building wrap has not been specified, ALL UNFACED FOAM EXPOSED TO DIRECT DAYLIGHT (i.e. corners, window and door openings) should be taped with a compatible waterproof tape. Defend-R CI Coated Glass is not intended to be left exposed for extended periods of time (i.e. in excess of 60 days) without adequate protection.

Please contact Drexel Metals for details.

TYPICAL PHYSICAL PROPERTY DATA

Polyiso Foam Core Only

Physical 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 ²))
Air Permeance	ASTM E 2178	<0.001 L(s·m ²) at 75 Pa
Impact Resistance (Janka Ball Test)	ASTM D 1037	15
Water Absorption	ASTM C 209	< 0.1% volume
Service Temperature		-100°F to 250°F (-73°C to 122°)
Flame Spread Index (foam core)	ASTM E 84	<75
Smoke Developed (foam core)	ASTM E 84	<450
Resistance to Mold	ASTM D 3273	Passed (10)
Recycled Content		9% pre-consumer

*Also available in 25 psi, Grade 3

DEFEND-R CI COATED GLASS

CODES AND COMPLIANCES

- ASTM C 1289
- Designed for use in continuous insulation to assist in meeting the most current ASHRAE 90.1, IECC, IBC and IRC standards
- IBC Chapter 26 and IRC Section R316
- Numerous NFPA 285 compliant assemblies

WEATHER RESISTANT BARRIER

The incorporation of Weather Resistant Barriers (air, vapor and moisture) is a critical element of a wall assembly. A design professional familiar with local code requirements should specify the selection and placement of any WRB. Furthermore, it is recommended that a hygrothermal analysis of the proposed assembly be conducted to determine the type and locations of a proposed WRB. Drexel Metals polyiso products have been tested and/or evaluated for NFPA 285 compliance with a wide assortment of WRB products. If a single-source solution is desired, Drexel Metals offers WRB options.

Note: The NFPA 285 fire test is an assembly test. The performance of the WRB must also be considered. Please consult Drexel Metals for details and specifications.

JOB-SITE STORAGE

Good construction practice dictates that all insulations should be protected from moisture and direct sunlight during job-site storage. Pallets of Defend-R CI Coated Glass are double packaged in a UV resistant polyethylene bag. This moisture resistant package is designed for protection from the elements during flat bed shipment from our factories to the job-site. Outdoor storage for extended periods of time requires waterproof tarpaulins and elevated storage above ground level a minimum of 2". Additionally, we recommend slitting the bundle packaging vertically down the center of the two short sides to prevent moisture accumulation within the package.

WARNINGS AND LIMITATIONS

Insulation must be protected from open flame. Drexel Metals will not be responsible for specific building 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. Call Drexel Metals for more specific details.

