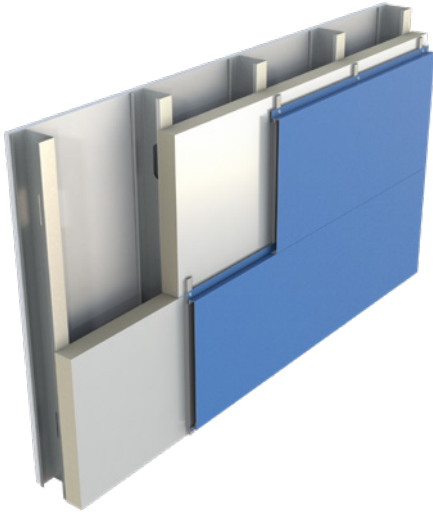


DEFEND-R CI FOIL (CLASS A)

CLASS A POLYISOCYANURATE INSULATION MANUFACTURED ON-LINE TO REINFORCED FOIL FACERS FOR EXTERIOR COMMERCIAL WALL APPLICATIONS



Defend-R CI Foil (Class A) is an energy efficient rigid insulation panel composed of a closed cell polyisocyanurate foam core manufactured on-line to an impermeable foil facing material. It is designed for use in commercial and residential wall applications to provide continuous insulation within the building envelope.

APPLICATIONS

- 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 metal, masonry, fiber cement, stucco, terra cotta, mcm, natural stone, stone aluminum

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
- Flame spread of <25 per ASTM E 84
- ASTM C 1289 Type I, 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 – (for example: 16" or 24" width)

DEFEND-R CI FOIL (CLASS A) THERMAL VALUES

Long Term Thermal Resistance Values are based on ASTM C 1289

Thickness (inches)	(mm)	LTTTR R-Value
1.00	25	6.3
1.50	38	9.5
1.60	41	10.1
2.00	51	13.0
2.50	64	16.0
3.00	76	19.0
3.50	89	22.0
4.00	102	25.2

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 Foil (Class A) is not structural sheathing; exterior cladding must be attached through to the framing
- When Defend-R CI Foil (Class A) is being used as a WRB the seams must be treated with one of our approved options
- 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 plain
- Defend-R CI Foil (Class A) is compatible with most construction grade adhesives, sealants, caulks, tapes, and spray foams

DEFEND-R CI FOIL (CLASS A)

POST-INSTALLATION EXPOSURE

During the time frame between installation of Defend-R CI Foil (Class A) and the application of the finished exterior cladding, it is recommended that a building wrap be applied to the Defend-R CI Foil (Class A). 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. When properly installed, Defend-R CI Foil (Class A) can remain uncovered up to 180 days.

Please contact Drexel Metals for details.

TYPICAL PHYSICAL PROPERTY DATA

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	<0.04 perm
Impact Resistance (Janka Ball Test)	ASTM C 1301	40
Service Temperature		-100°F to 250°F (-73°C to 122°)
Flame Spread Index (faced)	ASTM E 84	<25
Smoke Developed (faced)	ASTM E 84	<250
Recycled Content		9% pre-consumer

*Also available in 25 psi, Grade 3

CODES AND COMPLIANCES

- ASTM C 1289
- IBC Chapter 26 and IRC Section R316
- Numerous NFPA 285 compliant assemblies
- ICC-ES ESL-1607

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.

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 Drexel Metals Defend-R CI Foil (Class A) 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.

