

FIRE RATED CURTAINWALL

FRCW

PRODUCT

Fire Rated Class A Curtainwall (FRCW) translucent Fiberglass Reinforced Plastic (FRP) panels use a fire rated polymer resin system and contain UV stabilizers. This resin is combined with random chopped fiberglass for reinforcement.

PURPOSE

Fire Rated Curtainwall panels are suitable for use when a Class A fire rating per ASTM-E84 is required. Fire Rated Class A Curtainwall panels are used where building code requires flame spread ≤ 25 and smoke development ≤ 450 .

DESIGN PROPERTIES

PRODUCT CODE	DESCRIPTION	TYPE	COLOR	SIZE	THICKNESS
FRCW	Curtainwall	Translucent	Snowflake White 405	As defined by tooling and approved drawing	0.045" 1.1 mm

TYPICAL PHYSICAL PROPERTIES

PROPERTY	FRCW	TEST METHOD
NOMINAL WEIGHT	0.34 lb/ft ² 1.68 kg/m ²	---
TENSILE STRENGTH	15 x 10 ³ psi 103 MPa	ASTM - D638
TENSILE MODULUS	1.0 x 10 ⁶ psi 6895 MPa	ASTM - D638
FLEXURAL STRENGTH	32 x 10 ³ psi 221 MPa	ASTM - D790
FLEXURAL MODULUS	1.0 x 10 ⁶ psi 6895 MPa	ASTM - D790
COEFFICIENT OF LINEAR THERMAL EXPANSION	1.6 x 10 ⁻⁵ in/in/°F 29 μ m/m/°C	ASTM - D696
ICC COMBUSTIBILITY CLASSIFICATION	CC1	ASTM - D635
EXTENT OF BURNING	≤ 1.0 in ≤ 25.4 mm	ASTM - D635
ICC BURNING CLASSIFICATION	A	ASTM - E84
FLAME SPREAD	≤ 25	ASTM - E84
SMOKE DEVELOPED-INDEX	≤ 450	ASTM - E84
SELF IGNITION TEMPERATURE	$\geq 650^\circ\text{F}$ $\geq 343^\circ\text{C}$	ASTM - D1929





SPECIFICATIONS

Crane Composites panels are manufactured by a continuous laminating process in lengths as required.

COMPOSITION

Reinforcement: Random chopped fiberglass.

Resin Mix: Modified polyester copolymer and inorganic fillers and pigments.

FINISHED PANEL QUALITY

1. Panels shall have a wear side with a smooth finish. Color shall be uniform throughout, as specified. The backside shall be smooth. Backside imperfections which do not affect functional properties are not cause for rejection.
2. Physical properties shall be as set forth in Table 1.
3. Dimensions shall be as specified on purchase order, subject to the following tolerances:
WIDTH: $\pm 1/8"$ (± 3.2 mm)
LENGTH: $\pm 1/8"$ (± 3.2 mm) up to 12' (3.7 m)
SQUARENESS: $\pm 1/8"$ (3.2 mm) of width
4. Product quality standards and tolerances for panel weight and thickness shall be as set forth in Crane Composites' Quality Control Procedures/Standards which are available on request.

CERTIFICATIONS

1. FRP does not support mold or mildew (per ASTM D3273 and ASTM D3274).
2. Meets minimum requirements of major model building codes for Class A interior wall and ceiling finishes of flame spread ≤ 25 , smoke developed ≤ 450 (per ASTM E-84).

FABRICATING RECOMMENDATIONS

NOTE: Protect your eyes with goggles; cover your nose and mouth with a filter mask; cover exposed skin when cutting CCI panels.

HAND FABRICATING: Drilling—High speed drill bit (60° cutting angle, with 12°-15° clearance) or hole saw.

CUTTING: Sheet metal shears or circular saw with reinforced carborundum or carbide-tipped blade.

PRODUCTION FABRICATING: Use carbide-tipped tools. Straight cuts can be sheared (90° cutting edge with 0.002 [0.05 mm] clearance) or sawed. For irregular cuts, use die punch or band saw.

SDS: Prior to working with our products, see our most current SDS at cranecomposites.com/sds.html

STORAGE

All Crane Composites FRP products should be stored indoors.

SERVICEABLE TEMPERATURE RANGE

Panels will perform in temperatures from -40°F (-40°C) to 130°F (55°C). For use in environments beyond this range contact Crane Composites for recommendations.

LIMITATIONS

NEAR HEAT SOURCE: Crane Composites panels may discolor when installed behind or near any heat source which radiates temperatures exceeding 130°F (55°C), such as cookers, ovens, and deep fryers.

NOTICE

Panels will provide a clean, aesthetically-pleasing finished installation. However, by nature, fiberglass reinforced plastic paneling may occasionally have small areas that are aesthetically unacceptable for use. Panels should be inspected on-site prior to installation. If any portion of material does not provide an acceptable appearance, Crane Composites should be notified at once. Upon verification of unacceptability, that portion of material will be replaced by Crane Composites. Crane Composites' sole responsibility is for the replacement of defective materials but not for labor or other handling or installation expenses.

FLAME SPREAD AND SMOKE DEVELOPMENT RATINGS

The numerical flame spread and smoke development ratings are not intended to reflect alleged hazards presented by Crane Composites products under actual fire conditions and this product has not been tested by Crane Composites except as set forth below. These ratings are determined by small-scale tests conducted by Underwriters Laboratories and other independent testing facilities using the American Society for Testing and Materials E-84 test standard (commonly referred to as the "Tunnel Test").

CRANE COMPOSITES PROVIDES THESE RATINGS FOR MATERIAL COMPARISON PURPOSES ONLY. Like other organic building materials (e.g. wood), panels made of fiberglass reinforced plastic resins will burn. When ignited, FRP may produce dense smoke very rapidly. All smoke is toxic. Fire safety requires proper design of facilities and fire suppression systems, as well as precautions during construction and occupancy. Local codes, insurance requirements and any special needs of the product user will determine the correct fire-rated interior finish and fire suppression system necessary for a specific installation. We believe all information given is accurate, without guarantee. Since conditions of use are beyond our control, all risks are assumed by the user. Nothing herein shall be construed as a recommendation for uses which infringe on valid patents or as extending a license under valid patents. www.astm.org/Standards/E84.htm.