



Cooling Tower Class A Fire Rated | CTA

Product

Cooling Tower Class A Fire Rated (CTA) opaque Fiberglass Reinforced Plastic (FRP) is intended for use as casings and louvers for cooling towers. This product contains random chopped fiberglass for reinforcement.

Purpose

Cooling Tower Class A Fire Rated (CTA) is intended for use where a Class A fire rating per ASTM E-84 is required.

Table One: Physical Properties

| Typical Values CTA | | | |
|--|---------------------------------------|--|--------------|
| Property | 12oz./ft ² | 16oz./ft ² | Test Method |
| Tensile Strength | 9 x 10 ³ psi | 9 x 10 ³ psi | ASTM - D638 |
| Tensile Modulus | 0.7 x 10 ⁶ psi | 0.7 x 10 ⁶ psi | ASTM - D638 |
| Flexural Strength | 14 x 10 ³ psi 97 MPa | 16 x 10 ³ psi 110 MPa | ASTM - D790 |
| Flexural Modulus | 0.4 x 10 ⁶ psi 2758 Mpa | 0.50 x 10 ⁶ psi 3447 Mpa | ASTM - D790 |
| Coefficient of Linear Thermal Expansion | NA | NA | ASTM - D696 |
| Thermal Transmittance (U Value) | NA | N/A | ASTM - C1363 |
| Thermal Conductivity (k) | NA | NA | ASTM - C177 |
| Average Burn Rate | NA | N/A | ASTM - D635 |
| International Building Code Plastic Classification | CC2 | CC2 | ASTM - D635 |
| Self Ignition Temperature | NA | NA | ASTM - D1929 |
| Flash Ignition Temperature | NA | NA | ASTM - D1929 |
| Solar Heat Gain | NA | NA | NA |

Table Two: Design

| Product Code | Description | Type | Color | Size | Weight |
|--------------|----------------------|--------|----------|--------------------|----------------|
| 008CTA | 4.2" x 1 .06" Rib | Opaque | 675 Gray | 42' x 96" - 20' | 12oz. 16oz. |
| 041CTA | 5.33" x 1.75" V-Beam | | | 45" x 96" - 20' | 12oz. |
| 455CTA | 7.2" x 1.5" Box Rib | | | 39.25" x 96" - 20' | |
| 152CTA | Corner Roll | | | 6" x 6" x 96" | |

Corner Roll only available in 8oz. | Other widths and lengths available upon quotation. For Load Span Tables & Profile Drawings refer to Form #3700

TESTING:

Crane Composites panels meet or exceed applicable requirements of the following standards:

1. ASTM D3841, Standard Specification for Glass Fiber Reinforced Polyester Plastic Panels.
2. Code requirements of most state, county and municipal building departments.
3. Crane Composites is a recognized UL90 component manufacturer.
4. Meets minimum requirements of major model building codes for Class A interior wall and ceiling finishes of flame spread ≤ 25 , smoke developed 450 or less (per ASTM E-84)

SPECIFICATIONS:

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

Composition:

1. Reinforcement: random chopped fiberglass roving.
2. Resin mix: modified polyester copolymer and pigments.

FINISHED PANEL QUALITY:

1. Panels shall have a wear side with a smooth or textured finish. Color shall be uniform throughout. 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. 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.
4. 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: not more than $1/8"$ (3.2 mm) out of square
 - Pitch (over-all): $\pm 1/8"$
 - Rib Height: $\pm 1/16"$
5. The nominal light transmission factor shall have a tolerance of $\pm 5\%$ when tested in accordance to ASTM D1494.
6. Tolerance on the specified weight of panels shall be $\pm 10\%$, unless otherwise specified.

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.

FABRICATING RECOMMENDATIONS:

Note: Protect your eyes with goggles and cover your nose and mouth with a filter mask when cutting panels.

Hand fabrication: 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 fabrication: 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.

STORAGE RECOMMENDATIONS:

Store panels properly. While a single panel is engineered to withstand exposure to sunlight and the elements, a stack of panels will trap heat and moisture, causing internal clouding and/or yellowing in the panels. To avoid this irreversible effect, panels must be stored in a dry, shaded, well ventilated area. Skids should be elevated at one end by wood spacers. Failure to comply with recommended storage procedures will void the warranty on the panels.

CAUTIONS AND SAFETY WARNINGS:

DO NOT WALK ON PANELS. Crane Composites panels are not intended to support the undistributed weight of workers. Roofing ladders or 1" x 12" planks, or equivalent means of protection must be used during any work on roofs. Provide fall protection in accordance with OSHA standard 29 CFR 1910 [see paragraph 1910.23(a)(4) AND (e)(8)]. Compliance with this regulation as well as any other local, state or federal safety requirements is the responsibility of the building owner, contractor and/or erector.

MAINTENANCE:

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.

For other product formulations see technical data sheet CTN #3701.

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.

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Crane Composites is the manufacturer of Glasbord, Sequentia, Sanigrad II and a variety of other fiberglass reinforced plastic (FRP) composite wall panels. Inspired by the Kemlite tradition, Crane Composites has over 55 years of experience in Commercial Building Products and is a recognized industry leader in FRP applications.

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CRANE Composites