CRANE Composites

SOLARSTRONG® HIGH STRENGTH

2782 technical data

REV. 5 | 02/17

***SSW

PRODUCT

SolarStrong High Strength (SSW) translucent and opaque white Fiberglass Reinforced Plastic (FRP) panels use an advanced polymer resin system with premium U.V. and color stabilizers which provide protection against color change and fiberbloom. This resin is combined with woven roving and random chopped fiberglass to achieve high strength. SolarStrong high strength panels maintain premium color stability.

PURPOSE

SolarStrong High Strength panels are suitable for use as an exterior Daylighting material that may be exposed to the elements in a wide variety of climates. SolarStrong high strength panels are used where premium weathering characteristics, fiberbloom and UV resistance is required.

DESIGN PROPERTIES					
PRODUCT CODE	LIGHT TRANSMISSION	TYPE	COLOR	SIZE	WEIGHT
xxxSSW xxx = Profile Number	40%	Translucent	Snowflake White | 405A	As defined by tooling and approved drawing	8 oz/ft²

PHYSICAL PROPERTIES		
PROPERTY	SSW	TEST METHOD
FLEXURAL STRENGTH	23×10^3 psi | 159 MPa	ASTM - D790
FLEXURAL MODULUS	0.75×10^6 psi | 5171 MPa	ASTM - D790
TENSILE STRENGTH	23×10^3 psi | 159 MPa	ASTM - D638
TENSILE MODULUS	1.5×10^6 psi | 10,342 MPa	ASTM - D638
COEFFICIENT OF LINEAR THERMAL EXPANSION	1.6×10^{-5} in/in/°F | 29 µm/m/°C	ASTM - D696
THERMAL TRANSMITTANCE (U VALUE)	0.8 BTU/hr-ft²-°F	ASTM - C1363
THERMAL CONDUCTIVITY (K)	1.2 BTU-in/(hr-ft²-°F)	ASTM - C177
AVERAGE BURN RATE	≤ 2.5 in/min	ASTM - D635
ICC COMBUSTIBILITY CLASSIFICATION	CC2	ASTM - D635
SELF IGNITION TEMPERATURE	N/A	ASTM - D1929
FLASH IGNITION TEMPERATURE	N/A	ASTM - D1929
SOLAR HEAT GAIN	N/A	ASTM - D1929

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.

SPECIFICATIONS

Crane Composites, Inc. (CCI) panels are manufactured by a continuous laminating process in lengths as required.

COMPOSITION

Reinforcement: Random chopped fiberglass.
Resin Mix: Polyester/styrene copolymer, inorganic fillers, and pigments.

FINISHED PANEL QUALITY

1. Panels shall have a wear side with a smooth or textured finish. Color shall be uniform throughout as specified. The backside shall be smooth. The backside surface may have some variations which do not affect functional properties and are not cause for rejection.
2. Physical properties shall be as set forth on Page 1.
3. Dimensions shall be as specified on purchase order, subject to the following tolerances:
   WIDTH: ±1/8" (±3.2 mm)
   LENGTH: ±1/8" (±3.2 mm) up to 12′ (3.7 m)
   SQUARENESS: ±1/8" (3.2 mm) in 48" (1.2 m) 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

FRP does not support mold or mildew (per ASTM D3273 and ASTM D3274).

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 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.

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.

cranecomposites.com | 1.800.435.0080 | 1.815.467.8666 [fax] | **sales@cranecomposites.com**

CRANE® Composites

A global leading provider of resilient wall and ceiling coverings. Kemlite® was established in 1954 and the company changed names to Crane Composites in 2007. Crane Composites is headquartered in Channahon, IL and all our products are manufactured in the United States. We work with hundreds of distributors, ensuring our products are easily accessible and readily available to our customers.

The following are trademarks of Crane Composites, Inc. or a related company: Duralite, SunStrong, SolarStrong, Iso-Tuff and Crystalite