# technical data

## Composites

CRANE

### SMOOTH EXTERIOR panels for lamination

### **PRODUCT CODE: SLPCE**

#### CLASS C FIRE RATING PER ASTM E-84

#### PRODUCT

Crane Composites class c smooth exterior fiberglass reinforced plastic (FRP) panels are durable, semi-rigid, and will not mold, mildew, rot, rust, corrode, stain, dent, peel, or splinter. Panels exhibit a high strength-to-weight ratio with expansion/contraction values similar to aluminum.

#### PURPOSE

Crane Composites smooth exterior panels (SLPCE) are recommended for laminating to plywood, particle board or other substrates, using controlled laminating systems, such as even heat and/or pressure. This panel may be used in both interior and exterior applications. UV stabilizers have been added for increased weatherability.

DESIGN PROPERTIES						
PRODUCT CODE	NOMINAL THICKNESS	FINISH	COLOR	AVAILABLE SIZES		
SLPCE	0.03"   0.94 mm 0.06"   1.52 mm	Smooth	Black   695 Cotton White   1130	Manufactured to order*		

\*12,000 sq. ft. per product, weight and colors required to manufacture.

Orders from different customers may be batched to obtain manufacturing minimums, however lead time may be affected.

PROPERTY	0.03"	0.06"	TEST METHOD
FLEXURAL STRENGTH	12 x 10³ psi   83 Mpa	13 x 10³ psi   90 Mpa	ASTM - D790
FLEXURAL MODULUS	0.8 x 10º psi   5516 MPa	0.45 x 10º psi   3103 MPa	ASTM - D790
TENSILE STRENGTH	22 x 10³ psi   152 MPa	9 x 10³ psi   62 Mpa	ASTM - D638
TENSILE MODULUS	0.7 x 10º psi   4826 MPa	0.7 x 10º psi   4826 MPa	ASTM - D638
BARCOL HARDNESS	35	40	ASTM - D2583
IZOD IMPACT	10.0 ft-lb/in notched   0.53 J/mm	9.0 ft-lb/in notched   0.48 J/mm	ASTM - D256
COEFFICIENT OF LINEAR THERMAL EXPANSION	1.6 x 10 <sup>-5</sup> 10/10/°F   29 μm/m/°C	1.6 x 10 <sup>-5</sup> 10/10/°F   29 μm/m/°C	ASTM - D696
WATER ABSORPTION	0.3%/24hrs   @77°F   25°C	0.3%/24hrs   @77°F   25°C	ASTM - D570
SURFACE BURNING CHARACTERISTICS	Class C	Class C	ASTM - E84

#### 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

- Panels shall have a wear side with a smooth 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.
- Dimensions shall be as specified on purchase order, subject to the following tolerances: WIDTH: ±1/8" (±3.2 mm)
- LENGTH:  $\pm 1/8"$  ( $\pm 3.2$  mm) up to 12' (3.7 m) SQUARENESS:  $\pm 1/8"$  (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.
- 5. Panels shall be installed in accordance with manufacturer's guidelines as set forth in the Crane Composites Installation Guide (Form #6876).

#### CERTIFICATIONS

- 1. Meets USDA/FSIS requirements.
- 2. FRP does not support mold or mildew (per ASTM D3273 and ASTM D3274).
- Meets minimum requirements of major model building codes for Class C interior wall and ceiling finishes of flame spread ≤ 200, 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.

CLEANING INSTRUCTIONS: Available from CCI. SDS: Prior to working with our products, see our most current SDS at cranecomposites.com/sds.html

#### STORAGE REQUIREMENTS

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 will discolor when installed behind or near any heat source which radiates temperatures exceeding 130°F (55°C), such as cookers, ovens, and deep fryers. Do not install near a heat source. Uneven Surface: Installation over uneven concrete block walls may result in areas of delamination and bulging.

#### 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.

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 easily accessible and readily available to our customers.

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