



**Filon® Door Skin (Smooth) | SDSC**

**Product:**

Class C Door Skin fiberglass reinforced composite panels are made from high quality thermoset polyester resins with U.V. inhibitors. The surface is smooth, aesthetically pleasing, and free of wrinkles and other defects. Panels are suitable for use as a permanent exterior that may be exposed to the elements in a wide variety of climates.

Table One: Physical Properties			
Typical Values			
Property	SDSC   0.045"	SDSC   0.055"	Test Method
Flexural Strength	25 x 10 <sup>3</sup> psi 172 MPa	30 x 10 <sup>3</sup> psi 207 MPa	ASTM - D790
Flexural Modulus	0.75 x 10 <sup>6</sup> psi 5171 MPa	0.75 x 10 <sup>6</sup> psi 5171 MPa	ASTM - D790
Tensile Strength	13 x 10 <sup>3</sup> psi 90 MPa	13 x 10 <sup>3</sup> psi 90 MPa	ASTM - 638
Tensile Modulus	0.85 x 10 <sup>6</sup> psi 5861 MPa	0.85 x 10 <sup>6</sup> psi 5861 MPa	ASTM - 638
Barcol Hardness	40	40	ASTM - D2583
Impact Strength (IZOD) **	10 ft-lb/in 0.53 J/mm	8 ft-lb/in 0.43 J/mm	ASTM - D256
Coefficient of Linear Thermal Expansion	1.6 x 10 <sup>-5</sup> in/in/°F 29 µm/m/°C	1.6 x 10 <sup>-5</sup> in/in/°F 29 µm/m/°C	ASTM - D696
Water Absorption	0.3%/24 hrs@77°F	0.3%/24 hrs@77°F	ASTM - D570
Conductivity (K Factor)	1.2 BTU • in/hr/ft <sup>2</sup> /°F 14.9 kcal • cr/hr/m <sup>2</sup> /°F	1.2 BTU • in/hr/ft <sup>2</sup> /°F 14.9 kcal • cr/hr/m <sup>2</sup> /°F	ASTM - C177

\*\* Un-notched

Table Two: Physical Properties					
Product Code	Nominal Thickness	Nominal Weight	Finish	Length	Width
SDSC	0.045"	0.33 lbs/ft <sup>2</sup>	Smooth	Max length of 50'  1.3 m	18" - 64.75"  0.5 m - 1.6 m
	1.14 mm	1.61 kg/m <sup>2</sup>			
	0.055"	0.39 lbs/ft <sup>2</sup>			
	1.4 mm	1.90 kg/m <sup>2</sup>			

## SPECIFICATIONS

Crane Composites panels are manufactured in lengths and widths as required.

## COMPOSITION

Reinforcement: Random chopped fiberglass roving.

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

## FINISHED PANEL QUALITY

Panels shall have a smooth finish on the front side. Color shall be uniform throughout. Backside imperfections, which do not affect functional properties, are not cause for rejection.

Physical properties shall be as set forth in Table 1.

Dimensions shall be as specified on purchase order, subject to the following tolerances:

**Width:**  $\pm 1/8"$  ( $\pm 3.2$  mm)

**Length:**  $\pm 1/8"$  ( $\pm 3.2$  mm) up to 8' (2.4 m)

$\pm 1/4"$  ( $\pm 6.4$  mm) up to 40' (12.2 m)

**Squareness:**  $\pm 1/8"$  (3.2 mm) in 48" (1.2 m) of width

Disclaimer: Crane Composites, Inc. (called CCI hereafter) does not make any claims to the combustibility rating of the products listed on this data sheet. Not intended for interior applications.

## 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.

**Stapling:** Standard pneumatic stapler.

**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.

**Painting Preparation:** To properly prepare the panel surface for painting, make sure the surface is clean, dry, and free from all oils, grease, silicones, dust, and other contaminants. Alkaline detergents or clean water may be used for this purpose. Sanding or roughening of the panel surface is recommended to achieve acceptable paint adhesion. Use 600 grit or finer sand paper or a 3M "Ultrafine" Scotch-Brite® pad should be used.

**RV Cleaning Instructions:** Available from CCI.

## STORAGE REQUIREMENTS

Crane Composites panels are designed for peak performance prior to and after the panels have been applied. Careful handling during the manufacturing process is important. Avoid excessive clamping, dropping and scraping. Keep contents dry. Store indoors in a well ventilated area.

## PLEASE NOTE THE FOLLOWING PRODUCT USE INFORMATION:

Products manufactured by CCI will provide a clean, aesthetically pleasing finished installation. However, by nature, fiberglass reinforced plastic panels may occasionally have small areas that are aesthetically unacceptable for use. Panels should be inspected on-site prior to installation or lamination and original CCI skid tag/ticket number removed and retained. If any portion of material will not provide an acceptable appearance, CCI should be notified at once. Please report the non-conforming product utilizing the retained skid tag/ticket number. Upon verification of unacceptability, CCI will replace or refund the purchase price of the non-conforming product.

## 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](http://www.astm.org/Standards/E84.htm).

## CERTIFICATION

Meets minimum requirements of the major model building codes for Class C interior wall finishes. Flame spread less than 200, smoke developed less than 450 per ASTM E-84.

## LAMINATION

CCI recommends that the moisture content of lauan substrate be no greater than 12% at the time of lamination, and that the glue coverage between the CCI panel and the substrate be 100% coverage at the weight and thickness recommended by the adhesive manufacturer. Prior to lamination, the frp panel must be free of dust, moisture, particulates, or backside contaminants to ensure 100% bond. The quality of the substrate surface must also be free of dust or particulates prior to lamination. CCI will not be responsible for any loss resulting from sub-standard lamination processes.

Testing has indicated that non-lauan substrates, such as layered paper based products, do not perform well and may cause failure between the panel and the substrate. Use of any substrate other than lauan plywood must be pre-approved by CCI.

After lamination, the substrate must not be subjected to water intrusion or leakage as this may cause delamination and/or gel-coat blistering, which will not be covered under warranty.

## DARK COLORS

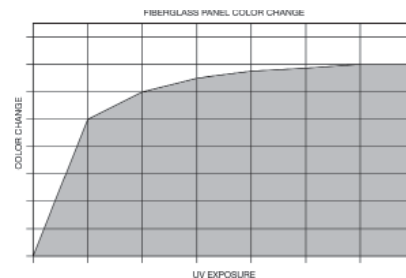
Dark colors, whether gel-coated or painted, will affect panel performance. Dark colored panels should be tested for performance under all appropriate conditions to make sure such colors will meet the requirements of the application. Dark colors may cause excessive heat build-up on the panel resulting in possible sidewall rippling, delamination, cracking, or decal failure. To be covered under warranty, dark colors must be pre-approved by CCI.

## APPLYING & PAINT FINISHES

Be aware that the application of certain paint or decal film color, normally those with a darker appearance, may cause excessive heat build-up on the panel resulting in possible sidewall rippling, delamination, or cracking. Dark colored panels should be tested under all appropriate conditions to make sure such colors will meet the requirements of the application. The use of a heat gun to apply or remove decals is not recommended as it will cause cracking of the gel-coat finish and will void this warranty. To be covered under warranty dark colors must be pre-approved by CCI.

## COLOR CHANGE

All products, when exposed to weathering and sunlight, change color over time as part of the aging process.



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Crane Composites is the manufacturer of Noble, Filon and a variety of other fiberglass reinforced plastic (frp) composite panels. Crane Composites has over 55 years of experience and is the recognized industry leader in frp applications.

We believe all information given is accurate. It is offered in good faith, but 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.

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