

Filon® Exterior Sunguard® Flexroof*

Part Number/Identifier: RVPRJ

Application: RV FLEXROOF

PRODUCT:

The acrylic modified Sunguard flexroof panel is a fiberglass reinforced polyester resin (frp) material, designed to be flexible. The embossed surface is highly scratch and abrasion resistant with excellent weathering conditions.

PURPOSE:

The flexroof panel is designed to be a flexible, one-piece roof panel for recreational vehicles and campers. Its flexibility allows the panel to bend around the radius, where the sidewall and roof meet. This results in a seamless, no leak roof panel. Minimum bend radius is 2" (50.8 mm). See illustration 1.

PHYSICAL PROPERTIES: TABLE 1**

PROPERTY	TYPICAL VALUE*		TEST METHOD
Flexural Strength	41 x 10 ³ psi	280 MPa	ASTM D790
Flexural Modulus	0.37 x 10 ⁶ psi	2577 MPa	ASTM D790
Tensile Strength	34 x 10 ³ psi	233 MPa	ASTM D638
Tensile Modulus	0.58 x 10 ⁶ psi	4009 MPa	ASTM D638
Barcol Hardness	25	25	ASTM D2583
Izod Impact Strength	10.6 ft-lbs/in	0.57 J/mm	ASTM D638
Coefficient of Linear Thermal Expansion	1.6 x 10 ⁻⁵ in/in•°F	28.80 µm/m•°C	ASTM D696
Water Absorption	0.30%/24hrs@77°F	0.30%/24hrs@25°C	ASTM D570

* Based on limited test results.

** Fiberglass reinforced plastic panels are low pressure composites and are not true homogeneous panels. Therefore, multiple samples are tested to arrive at an average value that is suitable for a general evaluation of the product and its anticipated performance.

DESIGN DATA: TABLE 2

PART NUMBER IDENTIFIER	NOMINAL THICKNESS	NOMINAL WEIGHT	FINISH	WIDTH	MINIMUM BEND RADIUS	COLORS
RVPRJ	0.045" (1.1 mm)	5.26 lb/ft ² (4.88 kg/m ²)	Embossed	70" - 108" (1.8 m - 2.7 m)	2" (50.8 mm)	8004 Polar White

Available in cut-to-size and continuous lengths.

SPECIFICATIONS

Filon panels are manufactured by a continuous laminating process in lengths and widths as required.

COMPOSITION

1. Reinforcement: Random chopped fiberglass roving.
2. Resin Mix: Modified polyester resin and inorganic fillers and pigments.

FINISHED PANEL QUALITY

1. Panels shall have smooth finish on the front side. 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. 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 8' (2.4 m)
±1/4" (±6.4 mm) up to 40' (12.2 m)
Squareness: 1/8" (3.2 mm) in 48" (1.2 m) of width
4. **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 Filon 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

Keep contents dry. Store indoors in a well ventilated area. Exposure to moisture will cause discoloration and lead to poor adhesive bonding.

PLEASE NOTE THE FOLLOWING PRODUCT USE INFORMATION:

Filon Recreational Vehicle 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.

This product is not intended for interior use that requires a class C fire rating.

NONWARRANTY

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 that infringe on valid patents or as extending a license under valid patents.

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.

SIDEWALL CONSTRUCTION WITHOUT SUBSTRATES

CCI should be consulted before specifying and installing any substrate-free product.

MINIMUM BEND RADIUS

CCI recommends all radius bends be supported by a solid substrate and not exceed the maximum bend radius specified on the product technical data sheet.

DARK COLORS

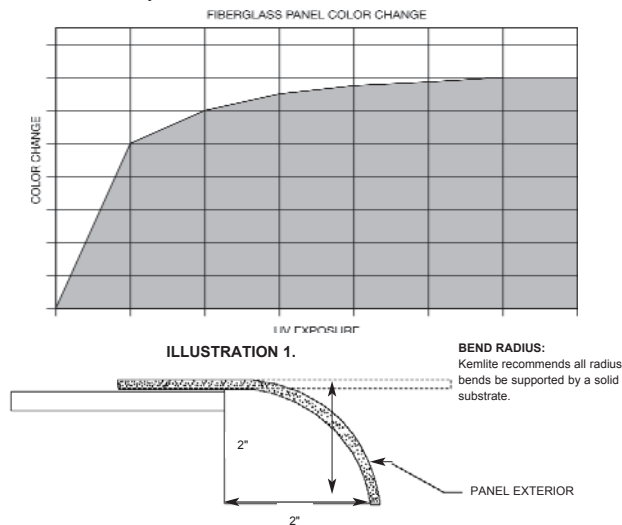
Dark colors, whether gel-coated or painted, will affect panel performance. Dark colored panels should be tested for performance under all appropriate conditions to make sure such colors will meet the requirements of the application. Dark colors may cause excessive heat build-up on the panel resulting 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. The rate of color change with frp is generally greatest during the initial years of exposure, and then will level off. Normal color change is not covered under Warranty.



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