

# Filon® Exterior Products

**Part Number/Identifier:** RVPL  
**Application:** EXTERIOR PANEL

## PRODUCT:

Filon embossed exterior products are durable, semi-rigid fiberglass reinforced polyester resin (frp) materials. They have a resin enhanced that is highly scratch and abrasion resistant with excellent weathering characteristics. For use in lamination systems only.

## PURPOSE:

Exterior products are especially designed for use on recreational vehicles, campers, door skins, luggage compartment liners, etc. They can also be used as an exterior panel in laminated building product panels. Attention: The backside finish is conducive to laminating operations. Follow adhesive manufacturer instructions carefully.

## PHYSICAL PROPERTIES: TABLE 1\*

PROPERTY	TYPICAL VALUE		TEST METHOD
Flexural Strength	11 x 10 <sup>3</sup> psi	76 MPa	ASTM D790
Flexural Modulus	0.30 x 10 <sup>6</sup> psi	2068 MPa	ASTM D790
Tensile Strength	8 x 10 <sup>3</sup> psi	55 MPa	ASTM D638
Tensile Modulus	0.5 x 10 <sup>6</sup> psi	3447 MPa	ASTM D638
Barcol Hardness	30	30	ASTM D2583
Izod Impact Strength	8.0 ft-lb/in	0.43 J/mm	ASTM D256
Coefficient of Linear Thermal Expansion	1.8 x 10 <sup>-5</sup> in/in/°F	32.4 µm/m/°C	ASTM D696
Water Absorption	0.3%/24hrs@77°F	0.3%/24hrs@25°C	ASTM D570

\* 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	SURFACE	NOMINAL WEIGHT	WIDTH
RVPL	0.045" (1.1 mm)	Embossed	0.24 lb/ft <sup>2</sup> (1.17 kg/m <sup>2</sup> )	36" - 108" (0.9 m - 2.7 m)
	0.060" (1.5 mm)		0.35 lb/ft <sup>2</sup> (1.70 kg/m <sup>2</sup> )	

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: Polyester/styrene copolymer and inorganic fillers and pigments modified for maximum weatherability.

## 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. Materials can be easily stapled.

## 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 Crane Composites, Inc. (CCI hereafter) 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 Crane Composites 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.

## 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 filon 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 by 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

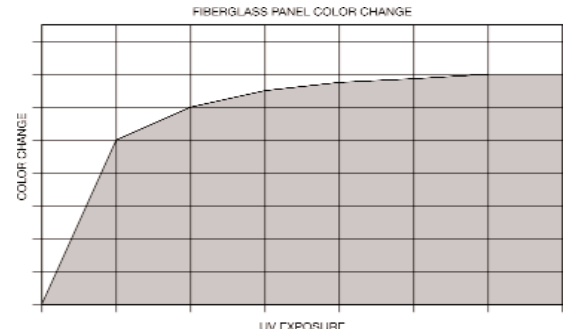
Dark colors, whether gel-coated or painted, will affect panel performance. Dark colored panels should be tested for performance under all appropriate conditions to make sure such colors will meet the requirements of the application. Dark odors may cause excessive heat build-up on the panel resulting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

## APPLYING DECALS & 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 filon is generally greatest during the initial years of exposure, and then will level off. Normal color change is not covered under Warranty.



## 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.

### Additional Information Available:

- #6242 RV Consumer Warranty
- #65000 RV Repair Manual
- RV Repair Video

For further information on our MSDS and Terms and Conditions of Sale, visit our website [www.cranecomposites.com](http://www.cranecomposites.com)

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