

# Kemlite ETR® Translucent Fiberglass Roof Panel

Part Number/Identifier: **ETR**  
 Application: **TRANSLUCENT ROOF PANEL**

**PRODUCT**

Kemlite ETR roof panel is a fiberglass reinforced polyester panel available full size for seamless, one-piece, high-strength roofs on van bodies and trailers. The ETR panel has a woven roving edge built into the roadside and curbside panel edges for additional reinforcement at the fasteners. It also contains an engineered fabric on the backside for enhanced tear resistance. The topside gets extra protection from the elements with LumaShield surface film. It is standard on all Kemlite roof panels.

**PURPOSE**

The strong, translucent fiberglass roof panel improves interior visibility for safer, faster loading and unloading with less damage to both cargo and the van body/trailer.

**PHYSICAL PROPERTIES TABLE 1**

PROPERTY	TYPICAL VALUE*		TEST METHOD
Flexural Strength	20 x 10 <sup>3</sup> psi	138 MPa	ASTM D790
Flexural Modulus	0.8 x 10 <sup>6</sup> psi	5516 MPa	ASTM D790
Tensile Strength	13 x 10 <sup>3</sup> psi	90 MPa	ASTM D638
Tensile Modulus	1.2 x 10 <sup>6</sup> psi	8274 MPa	ASTM D638
Barcol Hardness	50	50	ASTM D2583
Izod Impact	13 ft-lbs/in-notched	0.69 J/mm	ASTM D256
Coefficient of Linear Thermal Expansion	1.5 x 10 <sup>-6</sup> in/in•°F	27 μm/m•°C	ASTM D696
Water Absorption	0.3%/24 hrs @ 77°F	0.3%/24 hrs @ 25°C	ASTM D570
Specific Gravity	1.6	1.6	ASTM D792

\*Physical property values pertain to the center of the panel. Values for panel edges would be considerably higher.

**DESIGN DATA TABLE 2**

PART NUMBER IDENTIFIER	NOMINAL THICKNESS	NOMINAL WEIGHT	LENGTH	WIDTH	COLORS
ETR	0.075" (1.9 mm)	0.50 lb/ft <sup>2</sup> (2.50 kg/m <sup>2</sup> )	Up to 800' Coils (244m)	Up to 102' (2.6m)	(08) Translucent (85) White
Aluminum Roof Panel (for comparison only)	0.032" (0.8 mm)	0.46 lb/ft <sup>2</sup> (2.25 kg/m <sup>2</sup> )	-	-	-
	0.040" (1.0 mm)	0.57 lb/ft <sup>2</sup> (2.79 kg/m <sup>2</sup> )	-	-	-

## SPECIFICATIONS

These panels are manufactured by a continuous laminating process in lengths as required.

## COMPOSITION

1. Reinforcement: Random chopped fiberglass roving with woven edge reinforcement on edges, engineered fabric on the backside.
2. Resin Mix: Polyester/styrene copolymer and inorganic fillers and pigments.

## FINISHED PANEL QUALITY

1. Panels shall have the composition as shown above and shall have a wear side with a pebble-like embossed finish. 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. Product quality standards and tolerances for panel weights and thicknesses for each series shall be as set forth in Crane Composites' Quality Control Procedures/Standards which are available on request.
4. 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 12' (3.7 m)  
 $\pm 1/4"$  ( $\pm 6.4$  mm) from 12' (3.7 m) to 40' (12.2 m)  
Bulk Coil: -0" (-0 mm) and +6" (+152.4 mm)  
Squareness:  $1/8"$  (3.2 mm) in 48" (1.2 m) of width.

## CERTIFICATION

Meets the FMVSS #302 requirement.

## FABRICATING RECOMMENDATIONS

Note: Protect your eyes with goggles; cover your nose and mouth with a filter mask when cutting Crane Composites 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.

Sealant: Panel edges and fastener holes need to be properly sealed to prevent water penetration.

Rivet Spacing: Rivets should be spaced no more than 3" (76.2 mm) apart and no closer than 1/2" (12.7 mm) from panel edge (3/4" [19.1 mm] is optimum).

## DESIGN DATA NOTES

1. Bulk coil 200 linear feet (61.0 m) minimum. Bulk coil may be ordered in long lengths or in specific cut-to-size pieces. Crane Composites reserves the right to manufacture and ship total linear footage of long length bulk coils ordered within the following parameter lengths

per piece:

Min. 200' (61.0 m)

Max. 800' (243.8 m)

Cut-to-size lengths 12' (3.7 m) and over of the same width will be interlapped (18"-36" [45.7 cm-91.4 cm] interlap per panel) into a coil for ease of handling and shipping. Total length tolerance – 0" and +6" (-0 cm and +15.2 cm).

2. Thread on the back of the panel identifies Crane Composites frp panel. Gray threads denote Crane Composites Translucent Roof.

## STORAGE

All Crane Composites products should be stored indoors. When outside storage is necessary, cover and protect from the weather and exposure to sunlight. Trapped water between panels may cause expansion and discoloration.

## IMPORTANT

Fiberglass reinforced plastic translucent trailer roofs must be repaired immediately if damaged. Failure to make temporary or permanent repairs to a damaged roof immediately can result in increased damage up to and including trailer failure.

## STAINING STATEMENT

Some weathering/discoloration may occur to frp roof panels after they have been in service for several years. This is a normal wear condition.

## 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 will 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 material, but not for labor or other handling or installation expenses.

## 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 which infringe on valid patents or as extending a license under valid patents.

### Additional Information Available:

- #6294 Translucent Roof Specification
- #6311 Roof Panel Repair Tech Data
- #6232 Roof Repair Manual
- #6207 Bulk Coil Policy
- Roof Repair Video

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