

### EMBOSSED WITH RANDOM CHOPPED FIBERGLASS

### PRODUCT CODE: RISC

#### PRODUCT

Kemlite Reefer Roof, RISC, is a one-piece, high-strength fiberglass reinforced plastic (frp) roof. This product is comprised of random chopped fiberglass and polyester resin with woven reinforcement built into the roadside and curb side edges for additional strength at the fasteners.

#### PURPOSE

Kemlite Reefer Roof, RISC, is specifically designed and formulated for the use as a reefer roof for refrigerated trailers and truck bodies to improve thermal efficiencies.



### DESIGN PROPERTIES

PRODUCT CODE	NOMINAL THICKNESS	NOMINAL WEIGHT	FINISH	MAXIMUM LENGTH	MINIMUM WIDTH	MAXIMUM WIDTH	COLOR
RISC	0.075"   1.9 mm	0.46 lbs/ft <sup>2</sup>   2.25 kg/m <sup>2</sup>	Embossed	Available up to 600'   182.8 m	11"   0.3 m	103"   2.6 m	White   85
	0.120"   3.0 mm	0.775 lbs/ft <sup>2</sup>   3.78 kg/m <sup>2</sup>					

### TYPICAL PHYSICAL PROPERTIES

PROPERTY	RISC   0.075"	RISC   0.120"	TEST METHOD
FLEXURAL STRENGTH	21 x 10 <sup>3</sup> psi   145 MPa	22 x 10 <sup>3</sup> psi   151 MPa	ASTM - D790
FLEXURAL MODULUS	0.7 x 10 <sup>6</sup> psi   4826 MPa	0.8 x 10 <sup>6</sup> psi   5515 MPa	ASTM - D790
TENSILE STRENGTH	11 x 10 <sup>3</sup> psi   76 MPa	13 x 10 <sup>3</sup> psi   90 MPa	ASTM - D638
TENSILE MODULUS	1.1 x 10 <sup>6</sup> psi   7584 MPa	1.2 x 10 <sup>6</sup> psi   8273 MPa	ASTM - D638
BARCOL HARDNESS	40	40	ASTM - D2583
COEFFICIENT OF LINEAR THERMAL EXPANSION	1.5 x 10 <sup>-5</sup> in/in/°F   27 µm/m/°C	1.5 x 10 <sup>-5</sup> in/in/°F   27 µm/m/°C	ASTM - D696
THERMAL CONDUCTIVITY	0.4 Btu•in/hr•ft <sup>2</sup> °F   5.0 cal•cm/hr•m <sup>2</sup> °C	0.4 Btu•in/hr•ft <sup>2</sup> °F   5.0 cal•cm/hr•m <sup>2</sup> °C	ASTM - C177
WATER ABSORPTION	0.3%/24hrs@77°F   0.3%/24hrs@25°C	0.3%/24hrs@77°F   0.3%/24hrs@25°C	ASTM - D570
SPECIFIC GRAVITY	1.5	1.5	ASTM - D792





**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**

1. Panels shall have a wear side with a pebble-like embossed finish (FXE, FX, PIF, FTSTF, CGI, PWI, PCI, FTSTF/FTSTJ, FX/CGPF, LPCE, FRFRJ/FX) OR smooth finish (FSFM,FSI, PSIF, CNSI, IPSA/IPSC/IPCN, FSQF, FSI) OR matte embossed finish (RE/RE\*, REI) OR consistent pattern (STA/SSTA/LBALN/LNAM, STC/SSTC/LBCLN/FTBB).

Color shall be uniform throughout as specified. OR Panels shall have a wear side with a gelcoat finish. There shall be a contrasting core color. | SMXGJ/MXGCJ

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.
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 12' (3.7 m)  
SQUARENESS: ±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. Some products have been tested and meet the requirements FMVSS 302. For a list products that have been tested to this requirement, see our test reports on our website at [www.cranecomposites.com/testreports.html](http://www.cranecomposites.com/testreports.html)
3. FRP does not support mold or mildew (per ASTM D3273 and ASTM D3274).
4. Meets minimum requirements of major model building codes for Class A interior wall and ceiling finishes of flame spread ≤ 25, smoke developed ≤450 (per ASTM E-84).  
FXE, FSFM, FX, STA/SSTA/LBALN/LNAM, FX/CGPF, IPSA/IPSC/IPCN, FRFRJ/FX, FSI
5. 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).

PIF, FTSTF, PSIF, CGI, PWI, RE/RE\*, REI, STC/SSTC/LBCLN/FTBB, SMXGJ/MXGCJ, FTSTF/FTSTJ, FSQF, FX/CGPF, LPCE, IPSA/IPSC/IPCN

6. Meeting certification requirements for CAN/ULC-S102. | FX, PCI, IPCN, CNSI
7. MEA Certified. MEA 16-85M. VOL. II | FX
8. Fire-X Glasbord (FXE and FSFM) is the only fiberglass reinforced interior wall and ceiling panel that is accepted under Factory Mutual Research approved FRP, Plastic Interior Finish Materials when installed in accordance with Factory Mutual Research Approval Standard 4880. This information is available at [www.approvalguide.com](http://www.approvalguide.com) and [www.FRP.com/FMApproved.pdf](http://www.FRP.com/FMApproved.pdf).  
FXE, FSFM,
9. Agriculture and Agri-Food Canada Certified | PCI, CNSI
10. This panel has earned GREENGUARD® Indoor Air Quality Certification (Certificate #16349-410, 16364-410, 16351-410) [greenguard.org](http://greenguard.org). | Varietex Class A/C (Certificate #16352-410) [greenguard.org](http://greenguard.org). | Varietex Gelcoat (Certificate #16350-410) [greenguard.org](http://greenguard.org). | DESIGNS (Certificate #15955-410) [greenguard.org](http://greenguard.org). | Glasbord (Certificate #15956-410) [greenguard.org](http://greenguard.org). | Glasbord FM (Certificate #15957-410) [greenguard.org](http://greenguard.org). | Sequentia
11. Biological Resistance rating of 0 – Excellent per ISO 846. | FSFM
12. Particle Emission ISO Class 5 – 8 per ISO 14644-1. | FSFM

**IDENTIFICATION**

Product identified by 1 red and 1 blue thread on the back. | FXE  
Product identified by 2 red and 1 blue thread on the back. | FX  
Product identified by 2 gray threads on the back | CGI  
Product identified by 1 gray thread on the back. | PWI, PCI, PIF  
Product identified by 1 red thread on the back. | RE/RE\*, REI

**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

