

FX, FXE, FSI, CGI, PCI, PSI

GLASBORD EMBOSSED AND SMOOTH CEILING PANELS CLASS A & C FIRE RATING AS TESTED PER ASTM E-84

Product

Glasbord ceiling panels with Surfaseal are made of fiberglass reinforced plastic. They are durable, flexible building material and will not mold, mildew, rot, or corrode. They exhibit excellent resistance to mild chemicals and moisture. Ceiling panels have either a Class A (I) or Class C (III) rating for flame spread and smoke development.

Purpose

Glasbord ceiling panels are recommended for use in food/meat/dairy processing rooms, commercial kitchens, washrooms, and wherever a moisture-resistant, durable, non-acoustical ceiling system is required. Panels can be easily removed and cleaned to maintain a sanitary appearance. Ideal for use in combination with Sanigrad® II frp suspended grid system for a totally moisture/corrosion-resistant ceiling.

Surfaseal finish

Surfaseal is a unique surface treatment that, when compared to ordinary frp, exhibits up to ten times the cleanability, six times the stain resistance, and twice the abrasion resistance.

GLASBORD CEILING PANELS DEFLECTION POTENTIAL COMPARISON CHART

PART NUMBER IDENTIFIER	NOMINAL THICKNESS	COLOR	SURFACE	FIRE RATING	CALCULATED DEFLECTION POTENTIAL		TECH DATA #
					2' x 4' PANEL (0.6 m x 1.2 m)	2' x 2' PANEL (0.6 m x 0.6 m)	
FX	0.12" (3.0mm)	(85) white	Embossed	Class A	0.240" (6.1mm)	0.095" (2.4mm)	6226
FX	0.10" (2.5mm)		Embossed	Class A	0.472" (12.0mm)	0.188" (4.8mm)	6226
FXE (FM)	0.09" (2.3mm)		Embossed	Class A	0.470" (11.9mm)	0.187" (4.7mm)	6223
FSI	0.10" (2.5mm)		Smooth	Class A	0.302" (7.7mm)	0.121" (3.1mm)	65020
CGI	0.10" (2.5mm)		Embossed	Class C	0.330" (8.4mm)	0.132" (3.3mm)	6228
PCI	0.09" (2.3mm)		Embossed	CAN/ULC	0.437" (11.0mm)	0.175" (4.4mm)	6274
PSI	0.075" (1.9mm)		Smooth	Class C	0.355" (9.0mm)	0.142" (3.6mm)	6285

All fiberglass panels are prone to deflection (also called "pillowing" or "sag") when suspended in a grid system. Room operating conditions (temperature extremes and prolonged humidity) are contributing factors. Insulation overlaid on the panels, and certain critical lighting conditions will exaggerate the perception of the deflection. To minimize warping due to moisture absorption, the ceiling plenum must be ventilated to prevent condensation on the back of the ceiling panels.

Sanigrad II Grid & Glasbord/Kemply Ceiling Panel Sizes

Grid Size	Standard Glasbord Panel	Kemply Panel Thickness				
		1/4" (6.4mm)	1/2" (12.7mm)	5/8" (15.9mm)	3/4" (19.1mm)	1" (25.4mm) and over
(a) 2' x 4' (0.6m x 1.2m)	23-3/4" x 48" (0.6m x 1.2m)	23-3/4" x 48" (0.6m x 1.2m)	23-3/4" x 48" (0.6m x 1.2m)	23-3/4" x 48" (0.6m x 1.2m)	Not Recommended	23-3/4" x 47-1/2" (0.6m x 1.2m)
(b) 2' x 2' (0.6m x 0.6m)	23-3/4" x 23-3/4" (0.6m x 0.6m)	23-3/4" x 23-3/4" (0.6m x 0.6m)	23-3/4" x 23-3/4" (0.6m x 0.6m)	23-3/4" x 23-3/4" (0.6m x 0.6m)		23-5/8" x 23-5/8" (0.6m x 0.6m)
(c) 2' x 2' (0.6m x 0.6m)	23-3/4" x 24" (0.6m x 0.6m)	23-3/4" x 24" (0.6m x 0.6m)	23-3/4" x 24" (0.6m x 0.6m)	23-3/4" x 24" (0.6m x 0.6m)		23-5/8" x 23-5/8" (0.6m x 0.6m)

(a) Grid configured with main tees 4' O.C. and 4' cross tees interlocking main tees.

(b) Grid configured with main tees 4' O.C. and 4' cross tees interlocking main tees and 2' cross tees (SG222) intersecting 4' tees (see back diagram).

(c) Grid configured with main tees 2' O.C. and 2V cross tees (SG223) interlocking main tees.

Standard Metal Grid & Ceiling Panel Sizes

Grid Size	Panel Thickness
2' X 4' (0.6m x 1.2m)	23-3/4" x 47-3/4" (0.6m x 1.2m)
2' X 2' (0.6m x 0.6m)	23-3/4" x 23-3/4" (0.6m x 0.6m)

SPECIFICATIONS

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

COMPOSITION

1. **Reinforcement:** Random chopped fiberglass roving.
2. **Resin mix:** Modified polyester copolymer and inorganic fillers and pigments.

FINISHED PANEL QUALITY

1. Panels shall have a wear side with a pebble-like embossed finish. Color shall be uniform throughout, as specified. Other colors can be manufactured. The backside shall be smooth. Backside imperfections which do not affect functional properties are not cause for rejection.
2. Product quality standards and tolerances for panel weight and thickness shall be as set forth in Kemlite's Quality Control Procedures/Standards which are available on request.
3. Dimensions shall be as specified on purchase order, subject to the following tolerances:
Width: $\pm 1/8"$ (3.2 mm)
Length: $\pm 1/8"$ (3.2 mm) up to 12' (3.7 m)
Squareness: not more than $1/8"$ (3.2 mm) out of square.
4. Panels shall be installed in accordance with manufacturer's guidelines as set forth in the Glasbord "Installation Guide."
5. Bulk Coil Policy #6207 applies for coils for lamination.

CERTIFICATION

- A. Meets USDA/FSIS requirements.
 - B. Frp does not support mold or mildew (as tested per ASTM D3273 and ASTM D3274).
- FX 0.10" (2.5mm), FX 0.12" (3.0mm), and FSI 0.075" (1.9mm)**
- A. Meets minimum requirements of major model building codes for Class A (1) interior wall and ceiling finishes. Flames spread less than 25, smoke developed 450 or less (as tested per ASTM E-84).
 - B. ICBO Report #ER-4583.
 - C. MEA Approved. MEA 16-85M Vol. II (FX only).
 - D. Product identified by two red and one blue thread on the backside of the panel. Two Translucent Plastic Threads with Fluorescent Pigment Design® on the front identify Fire-X Glasbord (FX only).

FXE 0.09" (2.3 mm)

- A. Factory Mutual Approved.
- B. Product identified by one red and one blue thread on the backside of the panel. Two Translucent Plastic Threads with Fluorescent Pigment Design® on the front identify Fire-X Glasbord FM.

PSI 0.09" (2.3mm) and CGI 0.10" (2.5mm)

- A. Meets minimum requirements of the major model building codes for Class C (III) interior wall and ceiling finishes. Flame spread less than 200, smoke developed less than 450 per ASTM E-84.
 - B. Product identified by two black threads on the backside of the panel (CGI only) PCI 0.09" (2.3mm)
- A. Agriculture and Agri-Food Canada approval.
 - B. Meets Canadian code CAN/ULC-S102-M of ≤ 150 flame spread and ≤ 300 smoke developed.



FABRICATING RECOMMENDATIONS

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

STORAGE

All Kemlite products should be stored indoors.

SERVICEABLE TEMPERATURE RANGE

Panels will perform in temperatures from -40°F (-40°C) to 130°F (54°C). For use in environments beyond this range, contact Kemlite for recommendations.

KEMLITE TESTING

Cleanability test: When Glasbord with Surfaseal and an ordinary frp panel are heavily soiled, the Glasbord panel exhibits up to 10 times more cleanability per MacBeth Computer Colorimeter.

Stain resistance test: Prolonged direct contact to concentrated ammonia-based cleaner exhibited no color change per MacBeth Computer Colorimeter.

PRODUCT LIMITATIONS

Near heat source: Glasbord panel products may discolor when installed near a heat source which radiates temperatures exceeding 130°F (55°C) such as cookers, ovens, and deep fryers.

Uneven surface: Installation over uneven concrete block walls may result in areas of delamination and bulging.

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, Kemlite should be notified at once. Upon verification of unacceptability, that portion of material will be replaced by Kemlite. Kemlite's sole responsibility is for the replacement of defective material but not for labor or other handling or installation expenses.

FLAME SPREAD AND SMOKE DEVELOPMENT RATINGS

The numerical flame spread and smoke development ratings are not intended to reflect hazards presented by Kemlite products or any other material under actual fire conditions. 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"). KEMLITE 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.

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