GLASBORD.
fiberglass panel with
Surfaseal
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TECHNICAL DATA
6223
Rev. 14 06/08

FXE - Factory Mutual Approved

GLASBORD EMBOSSED WALL & CEILING PANEL
CLASS A FIRE RATING AS TESTED PER ASTM E-84

Product

Factory Mutual approved Fire-X Glasbord FM with Surfaseal is made of fiberglass reinforced plastic. It is a durable, flexible building material and will not mold, mildew, rot, or corrode. It exhibits excellent resistance to mild chemicals and moisture. The panel has a Class A (1) rating for flame spread and smoke development.

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.

Purpose

Fire-X Glasbord FM embossed panels are designed for interior wall finishes where a Class A fire-rated, Factory Mutual approved, sanitary, easy-to-clean panel is desired.

Ceiling Application

Fire-X Glasbord FM panels are approved for lay-in ceiling applications in a steel suspended ceiling system, without overlaid gypsum or insulation panels or blankets.

PHYSICAL PROPERTIES: TABLE 1

PROPERTY	TYPICAL VALUE		TEST METHOD
	0.09"	**2.3 mm**	
Flexural Strength	15×10^3 psi	103 MPa	ASTM D790
Flexural Modulus	0.9×10^6 psi	6200 MPa	ASTM D790
Tensile Strength	6×10^3 psi	40 MPa	ASTM D638
Tensile Modulus	1.6×10^6 psi	8960 MPa	ASTM D638
Barcol Hardness	55	55	ASTM D2583
Izod Impact Strength	11 ft-lb/in notched	0.58 J/mm	ASTM D256
Gardner Impact Strength	40 in-lbs	4.5 J	ASTM D5420
Coefficient of Linear Thermal Expansion	1.7×10^{-5} in/in•°F	31 µm/m•°C	ASTM D696
Water Absorption	0.16%/24 hrs @77°F	0.16%/24 hrs @25°C	ASTM D570
R Value	0.23 hr•ft²•°F/Btu	0.047 hr•m²•°C/kcal	ASTM D177
Surface Burning Characteristics	Class A	Class A	ASTM E84
Taber Abrasion Resistance (cs-17 wheels, 1000 g. wt., 25 cycles)	0.038% max wt loss	0.038% max wt loss	Taber Abrader

DESIGN DATA: TABLE 2

PART NUMBER IDENTIFIER	AVAILABLE COLORS	SIZE	FINISH	NOMINAL THICKNESS
FXE	85 white	4' x 8', 9', 10', 12' (1.2m x 2.4m, 2.7m, 3.0m, 3.7m) 2' x 2' and 2' x 4' grid systems (0.6m x 0.6m and 0.6m x 1.2m)	embossed	0.09" (2.3 mm)
Other lengths, widths, and colors available by quotation.				

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 that 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 weight and thickness 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: ±1/8" (3.2 mm)
   Length: ±1/8" (3.2 mm) up to 12' (3.7 m)
   Squareness: not more than 1/8" (3.2 mm) out of square.
5. Panels shall be installed in accordance with manufacturer's guidelines as set forth in the Glasbord "Installation Guide."
6. Bulk Coil Policy #6207 applies for coils for lamination.

CERTIFICATION

A. Meets USDA/FSIS requirements.
B. Meets minimum requirements of major model building codes for Class A (1) interior wall and ceiling finishes. Flame spread less than 25, smoke developed 450 or less (as tested per ASTM E-84).
C. ICBO Report #ER-4583.
D. Product identified by two sets of one red and one blue thread on backside of the wall panels and one red and one blue thread on the backside of the ceiling panels. Two Translucent Plastic Threads with Fluorescent Pigment Design® on the front identify Fire-X Glasbord FM.
E. Frp does not support mold or mildew (as tested per ASTM D3273 and ASTM D3274).
F. FMRC approved.

With the misinformation that exists in the market, contractors may be presented with product choices they believe to meet an "FM Approved" specification. Fire-X Glasbord FM is the only fiberglass reinforced interior wall panel that is accepted under Factory Mutual Research Approved FRP, Class 1 Interior Finish Material in accordance with Factory Mutual Research Approval Standard 4880. Test report #2B2A2.AM. Fire-X Glasbord FM is manufactured by Crane Composites, Channahon, IL

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 Crane Composites 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 Crane Composites for recommendations.

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.

CRANE COMPOSITES 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.

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.

FLAME SPREAD AND SMOKE DEVELOPMENT RATINGS
The numerical flame spread and smoke development ratings are not intended to reflect hazards presented by Crane Composites 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"). CRANE COMPOSITES 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.

Additional Information Available:

- #6211 Installation Guide
- CSI Specifications
- #6220 Accessories Tech Data

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