FSI

SMOOTH WALL PANEL  
CLASS A FIRE RATING AS TESTED PER ASTM E-84

Product
Glasbord-FSI 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
Glasbord-FSI smooth panels are designed for interior wall finishes where a Class A, sanitary, easy to clean panel is desired. Smooth panels will withstand moderate abuse. For high abuse resistance, embossed panels are recommended.

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>0.075&quot;</th>
<th>TYPICAL VALUE</th>
<th>1.9 mm</th>
<th>TEST METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexural Strength</td>
<td>14 x 10^2 psi</td>
<td>97 MPa</td>
<td></td>
<td>ASTM D790</td>
</tr>
<tr>
<td>Flexural Modulus</td>
<td>0.65 x 10^2 psi</td>
<td>4482 MPa</td>
<td></td>
<td>ASTM D790</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>7 x 10^2 psi</td>
<td>48 MPa</td>
<td></td>
<td>ASTM D638</td>
</tr>
<tr>
<td>Tensile Modulus</td>
<td>0.95 x 10^2 psi</td>
<td>6550 MPa</td>
<td></td>
<td>ASTM D638</td>
</tr>
<tr>
<td>Barcol Hardness</td>
<td>50</td>
<td>50</td>
<td></td>
<td>ASTM D2583</td>
</tr>
<tr>
<td>Izod Impact Strength</td>
<td>11 ft-lb/in notched</td>
<td>0.58 J/mm</td>
<td></td>
<td>ASTM D2583</td>
</tr>
<tr>
<td>Gardner Impact Strength</td>
<td>35 in-lbs</td>
<td>4 J</td>
<td></td>
<td>ASTM D5420</td>
</tr>
<tr>
<td>Coefficient of Linear Thermal Expansion</td>
<td>1.4 x 10^6 in/in/F</td>
<td>25 μm/m°C</td>
<td></td>
<td>ASTM D696</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>0.38%/24 hrs @77°F</td>
<td>0.38%/24 hrs @25°C</td>
<td></td>
<td>ASTM D570</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.8</td>
<td>1.8</td>
<td></td>
<td>ASTM D792</td>
</tr>
<tr>
<td>R Value</td>
<td>0.19 hr*ft²°F/ftu</td>
<td>0.039 h hr*m²°C/kcal</td>
<td></td>
<td>ASTM D177</td>
</tr>
<tr>
<td>Surface Burning Characteristics</td>
<td>Class A</td>
<td>Class A</td>
<td></td>
<td>ASTM E84</td>
</tr>
<tr>
<td>Taber Abrasion Resistance</td>
<td>0.005% max wt loss</td>
<td>0.005% max wt loss</td>
<td>Taber Abrader</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART NUMBER IDENTIFIER</th>
<th>AVAILABLE COLORS</th>
<th>SIZE</th>
<th>FINISH</th>
<th>NOMINAL THICKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSI</td>
<td>85 white</td>
<td>4' x 8', 9', 10', 12'</td>
<td>smooth</td>
<td>0.075&quot; (1.9 mm)</td>
</tr>
</tbody>
</table>

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 smooth 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.
C. Meets NFPA 251, UL 722, UL 746, ASTM E-84.
D. Meets FMVSS 302 Requirements.

FABRICATING RECOMMENDATIONS
Note: Protect your eyes with goggles; cover your nose and mouth with a 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 cirular saw with reinforced carbide or carbide tipped blade.
Production fabricating: Use carbide tipped tools. Straight cuts can be sheared (30° cutting edge with 0.032” [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.

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.

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.

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

Glasbord and Surfaseal are registered trademarks of Crane Composites, Inc.

Crane Composites
Form 85020 Rev. 13 (5166)