

6641

Rev. 04

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

Product:

Class A smooth panel is a semi-rigid building material made of fiberglass reinforced plastic (frp). These panels are resistant to moisture, therefore they will not mold, mildew, rot, or corrode.

Purpose:

Class A smooth panels are designed for interior wall finishes where a Class A, sanitary, easy to clean panel is desired.

PHYSICAL PROPERTIES: TABLE 1

PROPERTY	TYPICAL VALUE		TEST METHOD
	0.075" THICKNESS	1.9 mm THICKNESS	
Flexural Strength	14 x 10 ³ psi	97 MPa	ASTM D790
Flexural Modulus	0.65 x 10 ⁶ psi	4482 MPa	ASTM D790
Tensile Strength	7 x 10 ³ psi	48 MPa	ASTM D638
Tensile Modulus	0.95 x 10 ⁶ psi	6550 MPa	ASTM D638
Barcol Hardness	50	50	ASTM D2583
Izod Impact Strength	11 ft-lb/in notched	0.58 J/mm	ASTM D256
Gardner Impact Strength	35 in-lbs	4 J/mm	ASTM D3029
Coefficient of Linear Thermal Expansior	1.4 x 10 ⁻⁵ in/in/°F	25 µmm/m/°C	ASTM D696
Water Absorption	0.38%/24 hrs @77°F	0.38%/24 hrs @25°C	ASTM D570
Specific Gravity	1.8	1.8	ASTM D792
R Value	0.19 hr•ft ² •°F/Btu	0.038 hr•m ² •°C/kcal	ASTM D177
Surface Burning Characteristics	Class A	Class A	ASTM E84
Taber Abrasion Resistance (cs-17 wheels, 1000 g. wt., 25 cycles)	0.005% max wt loss	0.005% max wt loss	Taber Abrader

DESIGN DATA: TABLE 2

Product Code	Nominal Thickness	Color	Finish	Fire Rating	Size
FSI	0.075" (1.9 mm)	85 White	Smooth	Class A per ASTM E-84 ≤ 25 flame spread ≤ 450 smoke developed	4' x 8' (1.2 m x 2.4 m) 4' x 9' (1.2 m x 2.7 m) 4' x 10' (1.2 m x 3.0 m) 4' x 12' (1.2 m x 3.7 m)

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. 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 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: $\pm 1/8$ " (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
5. Panels shall be installed in accordance with manufacturer's guidelines as set forth in the Structoglas "Installation Guide."

FABRICATING RECOMMENDATIONS:

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

Hand fabrication: 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 fabrication: 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 Structoglas products should be stored indoors.

SERVICEABLE TEMPERATURE RANGE:

Panels will perform in temperatures from -40°F (-40°C) to 150°F (66°C). For use in environments beyond this range contact Crane Composites for recommendations.

LIMITATIONS:

Near heat source - Structoglas panel products may discolor when installed behind or near any heat source which radiates temperatures exceeding 130°F (55°C), such as cookers, ovens, and deep fryers.

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 does 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 materials but not for labor or other handling or installation expenses.

CERTIFICATION:

- A. Meets USDA/FSIS requirements
- B. Flame spread ≤ 25 , smoke developed ≤ 450
(per ASTM E-84)
- C. Frp does not support mold or mildew
(per ASTM D3273 and ASTM D3274)

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.

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.

For complete installation guidelines request document # 6876

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