

# **TECHNICAL DATA | RESOLITE**

Fiberglass Reinforced Polymer Panels





#### FS25A / CRFS25A '30' Series FRP Panels

In the industrial and corrosion market, Resolite and Fire Snuf- FS25A are synonymous with high quality fire rated fiberglass reinforced polymer panels. Resolite started production in 1951 and in 1964 developed and produced the first fire-retardant FRP panels.

In very corrosive environments, such as steel mill pickling operations, the maintenance staff discovered that after a few years of exposure their metal cladding was falling. The only things intact were the translucent FRP panels. From that start over 70 years ago, Resolite has become the leading producer of FRP panels for the corrosion market.

FS25A is the translucent and CRFS25A is the opaque version of Resolite's fire retardant panels. Both are available in a wide variety of profiles and in many types (1430 thru 830) and have a nominal weight of 14 oz. thru 8 oz. per square foot respectively.

FS25A and CRFS25A panels are a composite matrix of polyester resin and chopped strand fiberglass reinforcement. This glass reinforcement is multi-directional and provides equal strength in all directions. Although other types of glass reinforcements, such as linear glass, can provide stiffer panel characteristics and longer spanning capabilities, they sacrifice resiliency. The ability to absorb various forces without damage to its structural integrity is critical to the long term performance of FRP panels.

C/W Barrier is an option available on both exterior and/ or interior surfaces of '30' Series panels. C/W Barrier is the long range solution to better weathering FRP panels and is far superior to highly volatile sprayed on coatings that erode and fade away in a short time.

Resolite FS25A and CRFS25A panels have over 70 years of long term performance history. Both have been utilized wherever fire resistance, corrosion resistance and good weathering characteristics are critical. Installations include steel mills, aluminium production and other nonferrous manufacturing, pickling operations, cooling towers, fertilizer plants, chemical producers, pulp and paper mills, mining operations, water/wastewater facilities and a host of other industrial building applications.

#### FS25A / CRFS25A Features

- **UL Fire Rated -** Flame spread classification of 25\*.
- **Corrosion Resistant** Produced with a high quality isophthalic halogenated polyester resin.
- Outstanding Weathering Our high quality resin system incorporates neopentyl glycol, acrylic modification and UV stabilizers.
- **Embossed Exterior Surface** The exterior surface is embossed creating a resin rich surface for improved performance. The interior surface is smooth.
- C/W Barrier Protection OPTIONAL- a protective barrier in both exterior and interior surfaces that is fused into the resin/fiberglass matrix to give the panel even greater protection against degradation.
- Types Available 1430 (14 oz.) thru 830 (8oz.).
- Choice of Colors Available in two standard translucent colors - Clear and White; and three standard opaque colors - Stone White, Gray and Beige. Consult Standard Color Guide for more information.
- Choice of Profiles 5 standard profiles 7.2 x 1.5",
   7.2 D x 1.75", 7 x 1.5", 4.2 x 1-1/16" and 2-1/2 x 1/2".
   Consult Profile Selection Guide for non-standard profile availability and additional information.
- Outstanding Performance Backed by over 70
  years of case history in the corrosion and industrial
  market.
- Load/Span Data Based on full scale tests to simulate actual field conditions.
- Meets ASTM D 3841 Standard Specification for Glass-Fiber-Reinforced Polyester Plastic Panels.

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### **Physical Properties**

MOST COMMON TYPES AVAILABLE	1430	1230		1030	830
Nominal Wt., oz./sq.ft.	14 oz.	12 oz.		10 oz.	8 oz.
Nominal Thickness, in.**	.097	.085		.073	.060
Nominal Glass Content	30%	30%		30%	30%
Hardness, Barcol ASTM D 2583			40		
Flexural Strength, psi ASTM D 790			27,000		
Flexural Modulus, psi ASTM D 790			1.0 x 10 <sup>6</sup>		
Tensil Strength, psi ASTM D 638			16,000		
Cofficient of Expansion (in/in/°F) ASTM D 696			1.11 x 10 <sup>-5</sup>		
Conductivity (K Factor) ASTM C 177			1.15		
Dielectric Strength RMS V. @ 60 cycles ASTM D 149			483 V/Mil		
Fire Resistance Ignition Point ASTM D 1929			850 °F - 900 °F		
Flame Spread Classification ASTM E 84 (UL 723)			25*		

## Flamability ASTM D 635

Average Time of Burning less than 5 seconds Average Extent of Burning less than 20 mm Building Code Classification CC1 or C1

#### Notes

- \* All thickness based on flat material. Nominal thickness varies with profile.
- Resolite advises that the numerical flame spread classification is not intended to reflect hazards presented by this or any other material under actual fire conditions.

### Specification (short form)

- Translucent or opaque fiberglass reinforced polymer wall and/or roof panels shall be type \_\_\_\_\_\_\_ (1430 thru 830) corrosion resistant and fire retardant Resolite FS25A (translucent) or CRFS25A (opaque) as manufactured by Resolite, a Stabilit America Company, Moscow, TN.
- 2. Glass reinforcement shall be composed of chopped strand glass and shall be approximately 30% by weight. C/W barrier is optional.
- 3. Resin shall be high quality isophthalic, neopentyl glycol, halogenated polyester with acrylic modification and UV stabilizers.
- 4. Finish shall be embossed exterior/smooth interior.
- 5. Panel weight shall be nominal \_\_\_\_\_\_ (14 oz/sf type 1430 thru 8 oz/sf type 830) in order to comply with the maximum loads and spans recommended by Resolite.
- 6. Color shall be No. \_\_\_\_\_\_ (See color, finish, light transmission page 27).
- 7. Profile shall be \_\_\_\_\_\_ (See profile selection guide page 31 to 34) Length shall be \_\_\_\_\_\_
- 8. Panels shall be classified by Underwritters Laboratories Inc. with a Flame Spread of 25\*. The flame spread rating shall be achieved without the use of fillers. **Each panel shall have the underwriters' label.**

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