Fiberglass Reinforced Polymer Panels

Technical Data

Product Description
FS25A / CRFS25A '40' Series

FS25A / CRFS25A '40' 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. The '40' Series FS25A (translucent) and CRFS25A (opaque) panels were developed to meet a growing requirement for a high strength FRP panel. A combination of glass reinforcement consisting of bidirectional continuous strand woven and chopped strand fiberglass is the ideal solution for longer span capabilities without sacrificing resiliency and impact resistance.

A FRP panels' ability to absorb forces without damage to its structural integrity is critical to long term performance. Straight continuous glass provides stiffer and longer spanning panels which are susceptible to fracturing along the linear glass under continuous cycling and especially foot traffic. The bidirectional continuous strand woven glass provides added strength for longer spans and more evenly distributes stress from cyclic and impact loading thus allowing the FRP panels to maintain their resiliency.

Resolite's unique balance of multiple glass fiber reinforcements and isophthalic polyester resin permits designs which maximize both panel in place performance and load capacity without sacrificing functional requirements.

Resolite takes corrosion resistance and good weathering one step further by providing a C/W Barrier as standard on both exterior and interior surfaces of '40' 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 45 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, aluminum 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 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 - STANDARD - a protective barrier on both exterior and interior surfaces that is fused into the resin/fiberglass matrix to give the panel even greater protection against degradation.
- Multiple glass reinforcements - '40' Series panels utilize a high strength combination of glass reinforcement including bidirectional continuous strand woven and chopped strand glass.
- Types available - 1440 (14 oz.) thru 840 (8 oz.)
- Choice of profiles - 4 standard profiles - 7.2 x 1.5", 7.2D x 1.75", 7 x 1.5" and 4.2 x 1-1/16". Consult Profile Selection Guide for non-standard profile availability and additional information.
- Outstanding performance - backed by over 45 years of case history in the corrosion and industrial market.
- Load/Span data - based on full scale tests to simulate actual field conditions.
PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th>Most Common Types Available</th>
<th>1440</th>
<th>1240</th>
<th>1040</th>
<th>840</th>
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</thead>
<tbody>
<tr>
<td>Nominal Wt., oz./sq.ft.</td>
<td>14 oz.</td>
<td>12 oz.</td>
<td>10 oz.</td>
<td>8 oz.</td>
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<tr>
<td>Nominal Thickness, in.**</td>
<td>0.092</td>
<td>0.080</td>
<td>0.068</td>
<td>0.055</td>
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<tr>
<td>Nominal Glass Content</td>
<td>40%</td>
<td>40%</td>
<td>40%</td>
<td>40%</td>
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</tbody>
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Hardness, Barcol
ASTM D 2583
40

Flexural Strength, psi
ASTM D 790
34,000

Flexural Modulus, psi
ASTM D 790
1.2 x 10^6

Tensile Strength, psi
ASTM D 638
27,000

Coefficient of Expansion
(in/in°F) ASTM D 696
N/A

Conductivity (K Factor)
ASTM C 177
1.15

Dielectric Strength RMS V.
@ 60 cycles ASTM D 149
N/A

Fire Resistance Ignition Point
ASTM D 1929
850°F - 900°F

Flame Spread Classification
ASTM E 84 (UL 723)
25*

Flammability 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

** All thickness based on flat material. Nominal thickness varies with profile.

SPECIFICATION (Short Form)

1. Translucent or opaque fiberglass reinforced polymer wall and/or roof panels shall be type _______ (1440 thru 840) corrosion resistant and fire retardant Resolite FS25A (translucent) or CRFS25A (opaque) as manufactured by Resolite, a United Dominion Company, Zelienople, PA.

2. Glass reinforcement shall be composed of bidirectional continuous strand woven and chopped strand glass and shall be approximately 40% by weight. Both exterior and interior surface shall have a C/W Barrier.

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 1440 thru 8 oz/sf - type 840) in order to comply with the maximum loads and spans recommended by Resolite.

6. Color shall be No __________ (See Color, Finish, Light Transmission page 12A).

7. Profile shall be __________ (See Profile Selection Guide page 14A, B, & C). Length shall be __________.

8. Panels shall be classified by Underwriters 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.

* 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.