Resolite
FRP COMPOSITES

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Technical Data

Fire Resistance & Code Compliance

FIRE RESISTANCE

Resolite manufactures most of their fiberglass reinforced polymer panels with a fire rated resin system. In fact, Resolite developed and fabricated the first fire retardant FRP panel in 1964. Since then, Resolite has continually been in the forefront of supplying FRP panels in fire retardant resin systems.

Resolite's Tred-Safe, FS25A, CRFS25A, and RFM panels are examples of the highest quality fire retardant panel systems available. These product types are fabricated using an isophthalic, halogenated polyester resin with neopentyl glycol, acrylic modification and UV stabilizers. Each has demonstrated a flame spread rating of 25 or less when tested in accordance with ASTM E 84.

Resolite RFM panels have also been approved by Factory Mutual since they have passed the 25' and 50' full scale Corner Tests. In accordance with FM standard 4880, Resolite RFM panels have been approved for unrestricted use as a wall, roof or ceiling without height limitations or sprinkler protection. Resolite RFM 11, RFM 14 and RFM 17 panels have also passed ASTM E 108 achieving a Class B burning bran rating with a 3 in 12 roof slope.

The following guide illustrates Resolite's various fire retardant products, panel types, ratings and approvals. Please note that Resolite also manufactures Acryloy and CR-Acryloy non-fire retardant panel systems..

Product Type	Panel Type	Surface Burning Characteristics		Approval/ Listings	Building Code Classification	
		Flame Spread[1,5]	Smoke Developed		Flame Spread[1,5]	Rate of Burn[6]
Tred-Safe	1645	25	> 450	UL	1, I, or A	CC1
FS25A & CRFS25A	1440	25	> 450	UL	1, I, or A	CC1
	1430	25	> 450	UL		
FS25A & CRFS25A	1240	25	≤ 450	UL	1, I, or A	CC1
	1040	25	≤ 450	UL		
	840	25	≤ 450	UL		
FS25A & CRFS25A	1230	25	500	UL	1, I, or A	CC1
	1030	25	≤ 450	UL		
	830	25	≤ 450	UL		
RFM	17	15	≤ 250	FMRC	1, I, or A	CC1
	14	15	≤ 250	FMRC		
	11	15	≤ 250	FMRC		
Acryloy & CR-Acryloy	Non-fire rated general purpose resin system			ICBO Report #5048		CC2

NOTES:
1. 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.
2. UL - Underwriters Laboratories, Inc.
3. FMRC - Factory Mutual Research Center
4. ICBO - International Conference of Building Officials
5. In accordance with ASTM E84/UL723, NFPA 165
6. In accordance with ASTM D635

CODE COMPLIANCE

Resolite fire rated FRP panels are manufactured under rigorous standards and meet many code compliance criteria. Resolite FRP panels are listed or approved under the following classifications. For additional information, please contact Resolite Customer Service or your Resolite Sales Representative.

UNDERWRITERS LABORATORIES LISTINGS

Underwriters Laboratories Inc.

Fire Rating

Resolite fire rated product types FS25A, CRFS25A and Tred-Safe have achieved a UL Flame Spread Classification of 25 in accordance with the Steiner Tunnel Test, ASTM E 84 (UL 723). See reverse side for complete listings.

INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS APPROVAL

ICBO Panel Listing

Resolite Acryloy fiberglass reinforced polymer panels type 720, 840 and 1240 comply with Section 217 of the Uniform Building Code as approved plastics.

FACTORY MUTUAL APPROVALS

Approved

Fire Rating

Resolite RFM panels have passed the 25' and 50' full scale Corner Test. In accordance with Factory Mutual Standard 4880, Resolite RFM panels have been approved for unrestricted use as a wall, roof or ceiling panel without height limitations or sprinkler protection. See reverse side for listing.

Wind Uplift

Resolite RFM panels have passed the Factory Mutual Wind Uplift Tests and have achieved the following I-90 Classifications.

Profile	Panel Type	Class	Span
7.2 x 1.5" 7.2D x 1.75" 7 x 1.5"	RFM 17, 14	I-90	6'6"
7.2 x 1.5" 72D x 1.75" 7 x 1.5"	RFM 11	I-90	5'0"
4.2 x 1-1/16"	RFM 17, 14	I-90	5'3"

Insulated Panel System

Resolite RFM panels were tested as part of an insulated panel system and found to meet the FMRC Class 4453 / 4420 approval requirements for the RFM Insulated Wall and Roof / Ceiling Panel System.