



## Bromine-Free Flame Retardant Resin Systems

Composite Polymer Design offers a variety of flame retardant resin systems. Among them are a series of bromine-free systems that may be used for infusion and injection or hand lay-up that meet or exceed the requirements of UL 94 V0 and FAR 25.853(a) of FAA standards. The CPD 4282A resin was originally developed as a master batch flame retardant dispersion, but may also be used as supplied for bonding, casting and laminating applications.

	Room Temperature Infusion and Injection	Room Temperature Hand Lay-Up	Medium Temperature Hand Lay-Up	
System	4280A/4284B	4282A/4284B	4282A/4302B	Test Method
<b>HANDLING PROPERTIES</b>				
Mix Ratio By Weight	100A : 19B	100A : 14B	100A : 60B	
Mix Ratio By Volume	4A : 1B	5A : 1B	1.5A : 1B	
Resin Viscosity @ 75°F, cps	2,300	230,000	230,000	ASTM D-2393
Hardener Viscosity @ 75°F, cps	8	8	110	ASTM D-2393
Mixed Viscosity @ 75°F, cps	400	8,850	3,200	ASTM D-2393
Gel Time @ 75°F, 150g, minutes	35	27	NA	ASTM D-2471
Gel Time @ 185°F, 150g, minutes	NA	NA	30	ASTM D-2471
<b>PHYSICAL PROPERTIES</b>				
Color	White	White	Off-White	
Hardness, Shore D	90	90	91	ASTM D-2240
Tensile Strength, psi	7,400	4,300	3,600	ASTM D-638
Compressive Strength, psi	14,000	15,200	17,000	ASTM D-695
Flexural Strength, psi	11,400	7,800	6,600	ASTM D-790
Flexural Modulus, psi	427,000	706,000	672,000	ASTM D-790
Heat Deflection Temperature, °F	180	200	250	ASTM D-648
Availability:	55 Gallon Drum, 5 Gallon Pail and Gallon Kits			

Please see the individual Composite Polymer Design technical data bulletins and material safety data sheets for further information on a specific resin system.

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