

HETRON[®] FR 992 SB Resin

For all surfaces that will be exposed to air during fabrication (top-coating, lining, patching, exterior surfaces, etc.) the addition of 0.4% paraffin wax to the final resin layer is recommended. A waxed surface may interfere with secondary bonding adhesion.

Flame retardant vinyl resins do not demonstrate ultraviolet stability equivalent to non-halogenated vinyl ester resins. Ultraviolet stability may be improved by adding 0.5% CYASORB[®] UV-9 ultraviolet screener to the exterior exposed surfaces where aesthetic appearance is desired.

TYPICAL* MECHANICAL PROPERTIES

TYPICAL PHYSICAL PROPERTIES OF CURED CASTINGS⁹ AT 77°F (25°C):

TEST	VALUE	TEST METHOD
Barcol Hardness	35	ASTM D-2583
Tensile Strength, psi	13,000	ASTM D-638
Tensile Modulus, psi x 10 ⁵	5.0	ASTM D-638
Tensile Elongation at Yield, %	4.6	ASTM D-638
Tensile Elongation at Break, %	5.0	ASTM D-638
Flexural Strength, psi	21,000	ASTM D-790
Flexural Modulus, psi x 10 ⁵	5.2	ASTM D-790
Heat Deflection Temperature, °C/°F	108/227	ASTM D-648

TYPICAL MECHANICAL PROPERTIES AT VARIOUS TEMPERATURES:

Approximately				Flexural		Tensile	
Temperature F	Temperature °C	Thickness Inch ¹⁰	Glass Structure	Strength, psi	Modulus, psi x 10 ⁶	Strength, psi	Modulus, psi x 10 ⁶
77	25	1/8	V, 2M	19,800	0.81	12,800	1.12
		1/4	V, 2M, 2(RM)	35,000	1.21	19,900	1.85
		1/2	V, 4M, 4(RM)	26,200	1.08	23,200	1.92
200	93	1/8	V, 2M	20,200	0.72	13,200	1.01
		1/4	V, 2M, 2(RM)	32,400	1.04	23,900	1.42
		1/2	V, 4M, 4(RM)	31,600	1.21	21,400	2.26
250	121	1/8	V, 2M	15,400	0.40	7,500	0.50
		1/4	V, 2M, 2(RM)	12,500	0.60	18,900	1.31
		1/2	V, 4M, 4(RM)	23,100	0.98	19,000	0.98

V = 10 mil Glass Surfacing Veil
M = 1.5 oz Chopped Strand Mat
R = 24 oz Woven Roving

Formula: HETRON FR 992 Resin 100. parts
6% Cobalt Naphthenate 0.30 parts
DMA 0.05 parts
HI POINT 90 Catalyst 1.50 parts
Cure: Post Cured 2 Hours at 250°F

⁸Registered trademark of Cyttec Industries

⁹HETRON FR 992 resin prior to adding antimony trioxide. Catalyzed with 1% BPO, cured two hours at 160°F, then one hour at 200°F, postcured two hours at 280°F.

¹⁰Glass content: 1/8"=25%, 1/4"=40%, 1/2"=40%