

Quantum Forged Preg™ 8575

Sheet Molding Compound

PRODUCT DESCRIPTION

Carbon Fiber reinforced hybrid vinyl ester molding compound

GENERAL

Material Status	• Commercial: Active		
Availability	• North America	• Europe	• Asia Pacific
Filler/Reinforcement	• 3K PAN Carbon Fiber	• Nominal 51% w/w	• Triaxial Continuous Mat
Features	• Fatigue resistance • High strength	• High stiffness • Shelf Life 2 months @ 75°F	• Black or Natural Color
Processing Method	• Forged Preg™ 8575 can be molded at temperatures in the range of 260-310°F, with 280°F suggested as a starting point. Cure times will be dependent on molding temperature and part thickness and will typically be 3-5 minutes. Detailed molding suggestions are available on request. Cool molded parts at ambient temperature. A cooling fixture may be needed depending on part thickness and geometry. Matched metal die molds.		
Resin	• VE Hybrid Composite		

PHYSICAL	Typical	Unit	Test Method
Density	1.48	g/cm ³	ASTM D792
Shrinkage	<0.000	in/in	cold mold to cold part
CLTE, X-Y plane	12	ppm/°C	ASTM E831
CLTE, Z plane	50	ppm/°C	ASTM E831
Poisson's Ratio	0.35	psi (MPa)	ASTM D638

MECHANICAL (Machined)	Typical	Unit	Test Method
Tensile Modulus	4.8E+6 (33,090)	psi (MPa)	ASTM D3039
Tensile Stress (Break)	73,000 (503)	psi (MPa)	ASTM D3039
Flexural Modulus	4.8E+6 (33,090)	psi (MPa)	ASTM D790
Flexural Stress (Break)	99,000 (682)	psi (MPa)	ASTM D790

Machined Properties are determined using specimen machined from molded 12"x12" panels with 80% mold coverage, 1000 psi pressure, 280-300°F mold temperature for 3-5 minutes

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THERMAL	Typical	Unit	Test Method
Glass Transition T_i , TanDelta	142	(°C)	ASTM D7028
Glass Transition T_g , Storage Modulus	118	(°C)	ASTM D7028

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Page 2 of 2

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