

Quantum Forged Preg™ 8585 NT, 126-76-79

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	• 12K PAN Carbon Fiber	• Nominal 55% w/w	• Biaxial Continuous Mat
Features	• Fatigue resistance • High strength	• High stiffness • Shelf Life 2 months @ 75°F	• Black or Natural Color
Processing Method	• Forged Preg™ 8585 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	1.50	g/cm ³	ASTM D792
Shrinkage	<0.000	in/in	cold mold to cold part
CLTE, X-Y plane	4	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	8.0E+6 (55,150)	psi (MPa)	ASTM D3039
Tensile Stress (Break)	90,000 (620)	psi (MPa)	ASTM D3039
Flexural Modulus	6.0E+6 (41,300)	psi (MPa)	ASTM D790
Flexural Stress (Break)	75,000 (517)	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

For additional information, please contact:

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