

# Quantum Forged Preg™ 8595 NT, 126-76-75

## Sheet Molding Compound

### PRODUCT DESCRIPTION

Carbon Fiber reinforced hybrid vinyl ester molding compound

#### GENERAL

<b>Material Status</b>	• Commercial: Active		
<b>Availability</b>	• North America	• Europe	• Asia Pacific
<b>Filler/Reinforcement</b>	• 60K PAN Carbon Fiber	• Nominal 55% w/w	• Uni-directional Continuous Mat
<b>Features</b>	• Fatigue resistance • High strength	• High stiffness • Shelf Life 2 months @ 75°F	• Black or Natural Color
<b>Processing Method</b>	• <b>Forged Preg™ 8595</b> 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.		
<b>Resin</b>	• VE Hybrid Composite		

PHYSICAL	Typical	Unit	Test Method
Density	1.48	g/cm <sup>3</sup>	ASTM D792
Shrinkage	<0.000	in/in	cold mold to cold part
CLTE, X plane	2	ppm/°C	ASTM E831
CLTE, Z plane	45	ppm/°C	ASTM E831
Poisson's Ratio	0.16	psi (MPa)	ASTM D638

MECHANICAL (Machined)	Typical	Unit	Test Method
Tensile Modulus, 0°	14.0E+6 (99,300)	psi (MPa)	ASTM D3039
Tensile Stress (Break) , 0°	185,000 (1276)	psi (MPa)	ASTM D3039
Flexural Modulus, 0°	13.5E+6 (93,100)	psi (MPa)	ASTM D790
Flexural Stress (Break) , 0°	174,400 (1202)	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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## Quantum *Forged Preg*<sup>™</sup> 8595 NT, 126-76-75 Sheet Molding Compound

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

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For additional information, please contact:

**A. Schulman Inc., Engineered Composites**  
**Quantum Composites, Inc.**  
1310 South Valley Center Drive  
Bay City, MI 48604  
p: 989-922-3863  
f: 989-922-3915  
[www.aschulman.com](http://www.aschulman.com)

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