Quantum LYTEX™ SF 6090
Sheet Molding Compound

PRODUCT DESCRIPTION
Styrene-free carbon fiber reinforced epoxy molding compound

GENERAL

Material Status	• Commercial: Development		
Availability	• North America	• Europe	• Asia Pacific
Filler/Reinforcement	• 12K PAN Carbon Fiber	• Nominal 50% w/w	• Combination 25mm and 50mm
Features	• Styrene-free • High stiffness • High strength	• Fatigue resistance • Black or Natural Color • Shelf Life 6 months @ 10°F or below	
Processing Method	• **LYTEX™ SF 6090** can be molded at temperatures in the range of 260-325°F, with 300°F suggested as a starting point. Cure times will be dependent on molding temperature and part thickness and will typically be 6-10 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 ID (ISO 1043)	• Epoxy Composite		

PHYSICAL	Typical	Unit	Test Method
Density	1.45	g/cm^3	ASTM D792
Shrinkage	-0.001	in/in	cold mold to cold part
CLTE, X-Y plane	5	ppm/°C	ASTM E831
CLTE, Z plane	52	ppm/°C	ASTM E831
Poisson's Ratio	0.33	psi (MPa)	ASTM D638

MECHANICAL (Machined)	Typical	Unit	Test Method
Tensile Modulus	5.0E+6 (34,500)	psi (MPa)	ASTM D3039
Tensile Stress (Break)	26,000 (179)	psi (MPa)	ASTM D3039
Flexural Modulus	4.7E+6 (32,400)	psi (MPa)	ASTM D790
Flexural Stress (Break)	67,000 (462)	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 6-10 minutes

Quantum LYTEX™ SF 6090

Sheet Molding Compound

MECHANICAL (Net Shape)	Typical	Unit	Test Method
Tensile Modulus	9.5E+6 (65,500)	psi (MPa)	ASTM D638
Tensile Stress (Break)	35,000 (241)	psi (MPa)	ASTM D638
Flexural Modulus	7.5E+6 (51,700)	psi (MPa)	ASTM D790
Flexural Stress (Break)	95,000 (655)	psi (MPa)	ASTM D790

Machined Properties are determined using specimen molded to net shape, 1000 psi pressure, 280-300°F mold temperature for 6-10 minutes

THERMAL	Typical	Unit	Test Method
Glass Transition T_t, TanDelta	160	°C	ASTM D7028
Glass Transition T_g, Storage Modulus	125	°C	ASTM D7028

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

Revision Date: January 12, 2017