

## Quantum Composites AMC™ 8590 BK 53% Carbon Fiber Reinforced Vinyl Ester SMC

Category : Polymer , Thermoset , Carbon Fiber/Thermoset Composite , Composite SMC , Vinyl Ester , Vinyl Ester Sheet Molding Compound

### Material Notes:

AMC™ 8590 BK is a vinyl ester, chopped carbon fiber reinforced engineered structural composite molding compound. It is easily moldable and provides parts that are high strength, fatigue resistant, with high heat resistance and a low density. The carbon fiber is PAN based 12K tow. Form = Sheet Color = Black Carbon Fiber Content = 53% nominal Information provided by Quantum Composites.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Quantum-Composites-AMC-8590-BK-53-Carbon-Fiber-Reinforced-Vinyl-Ester-SMC.php](http://www.lookpolymers.com/polymer_Quantum-Composites-AMC-8590-BK-53-Carbon-Fiber-Reinforced-Vinyl-Ester-SMC.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.48 g/cc	1.48 g/cc	ASTM D792
Linear Mold Shrinkage	<= 0.00 cm/cm	<= 0.00 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength	282 MPa	40900 psi	ASTM D638
Tensile Modulus	55.0 GPa	7980 ksi	ASTM D638
Flexural Strength	606 MPa	87900 psi	ASTM D790
Flexural Modulus	38.5 GPa	5580 ksi	ASTM D790
Compressive Strength	286 MPa	41500 psi	ASTM D695
Compressive Modulus	33.8 GPa	4900 ksi	ASTM D695
Poissons Ratio	0.305	0.305	ASTM D638

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	287 °C	549 °F	Deflection Temperature, Load not specified; ASTM D648
Glass Transition Temp, Tg	118 °C	244 °F	ASTM D4065

Processing Properties	Metric	English	Comments
Processing Temperature	127 - 154 °C	260 - 310 °F	Compression Molding
Cure Time	5.00 - 10.0 min @Temperature 138 °C	0.0833 - 0.167 hour @Temperature 280 °F	
Shelf Life	2.00 Month	2.00 Month	

Processing Properties	@Temperature 23.9 °C Metric	@Temperature 75.0 °F English	Comments
Descriptive Properties		Value	Comments
Fiber Length (in)		1	Carbon, nominal

## Contact Songhan Plastic Technology Co.,Ltd.

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