

Product Data Sheet
QC-8560
Engineered Structural Composite (ESC) Molding Compound

QC-8560 is a vinyl ester ESC molding compound designed for compression molding of components requiring high structural strength. It maintains excellent mechanical properties at temperatures above 125°C, and will withstand short-term exposures at over 300°C.

TYPICAL PROPERTIES -- UNCURED

Form Rolled, Festooned Sheet 24" & 48" width	Shelf Life: @75°F 2 months
Color Green, Gray, Black, Natural	Glass Fiber Content Nominal 60%
	Glass Fiber Length Nominal ½-inch

TYPICAL PROPERTIES -- CURED

<u>Test</u>	<u>Procedure</u>	<u>Value</u>
Specific Gravity, g/cc	ASTM D-792	1.9
Water Absorption, %	ASTM D-570	0.05
Shrinkage, inch/inch (mm/mm)	ASTM D-955	0.001 (0.025)
Glass Transition Temperature (T _g)	ASTM D-4065	320°F (160°C)
Flexural Strength, psi (MPa) ¹	ASTM D-790	62,000 (427)
Flexural Modulus, psi (GPa) ¹	ASTM D-790	2.6x10 ⁶ (17.9)
Flexural Strength @ 240°F (115°C), psi (MPa) ¹	ASTM D-790	53,100 (365)
Flexural Modulus @ 240°F (115°C), psi (GPa) ¹	ASTM D-790	2.35x10 ⁶ (16.2)
Tensile Strength, psi (MPa) ¹	ASTM D-638	38,000 (261)
Tensile Modulus, psi (GPa) ¹	ASTM D-638	3.9x10 ⁶ (26.8)
Izod Impact, notched, ft.lb./in. (J/M)	ASTM D-256	24 (1280)
Compression Strength, psi (MPa)	ASTM D-695	48,500 (345)
Compression Modulus, psi (Mpa)	ASTM D-695	2.5x10 ⁶ (17.2)

Molding Suggestions - QC-8560 can be molded over a range of temperatures and pressures. For part thickness of 0.5 inches or less, molding temperatures of 270 to 300°F are suggested as a starting point, with molding pressure of 300 to 1000 psi. For molding thicker sections, the molding temperature should be reduced. Cure time will depend on molding temperature and part thickness. A 0.25-inch section will cure in 3 to 5 minutes at 275°F.

Precautions -- QC-8560 contains glass fibers and styrene monomer. Use only in areas with good ventilation. Handle carefully in order to minimize skin contact. See Material Safety Data Sheet for additional information.

WARRANTY -- The above information is offered for your consideration, investigation, and verification. No warranty, expressed or implied, is given, nor is freedom from any patents owned by Quantum Composites or others implied. Final determination of the suitability of this material is the sole responsibility of the buyer. Contact our sales representative for assistance in developing procedures to fit individual requirements.

This ESC product is generally intended to be compression molded in matched-metal die molds. Strength values may be affected by the molding process. **The values presented in this data sheet are typical values and are not to be interpreted as product specifications.**

¹Tensile and Flexural Properties are determined using net shape molded specimens. Values obtained on cut specimens will typically be lower