

Preliminary Data Sheet  
**QC-8740**  
Engineered Structural Composite (ESC) Molding Compound

QC-8740 is a polyester hybrid ESC molding compound designed for compression molding of components requiring toughness and flame retardance (formerly QC-125-80).

TYPICAL PROPERTIES -- UNCURED

Form ..... Rolled Sheet Shelf Life: @75°F ..... 1 months  
Color ..... Matte Black Glass Content ..... 35-40%  
Glass Length ..... 1 inch

TYPICAL PROPERTIES -- CURED

<u>Test</u>	<u>Procedure</u>	<u>Value</u>
Specific Gravity	ASTM D-792	1.9
Shrinkage, inch/inch	ASTM D-955	0.001
Water Absorption, %	ASTM D-570	0.3
Flexural Strength, psi	ASTM D-790	55,000
Flexural Modulus, psi	ASTM D-790	2x10 <sup>6</sup>
Tensile Strength, psi	ASTM D-638	31,000
Compression Strength, psi	ASTM D-695	45,000
Izod Impact, ft.lb./in.	ASTM D-256	30
DTUL (HDT), °C	ASTM D-648	>300°C

MOLDING SUGGESTIONS -- QC-8740 can be molded over a range of temperatures and pressures. For compression molding, an initial temperature in the 270-300°F range and pressures of 300-1000 psi are suggested. A mold closing time of 10-20 seconds (after the mold contacts the compound) is helpful in minimizing air entrapment. Cure time will depend on temperature and part thickness. A 0.25-inch section will cure in 2-4 minutes at 300°F. Parts may be slightly rubbery on ejection.

PRECAUTIONS -- QC-8740 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, Inc. 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.

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