

Product Data Sheet  
QC-8777

Engineered Structural Composite (ESC) Molding Compound

QC-8777 is a polyester hybrid ESC molding compound designed for compression molding of components requiring high structural strength, corrosion resistance and temperature resistance combined with low molded density.

TYPICAL PROPERTIES -- UNCURED

Form . . . . .Rolled, Festooned Sheet 24" & 48" width	Shelf Life: @75°F . . . . . 1 month
Color . . . . . Black, Natural	Glass Fiber Content . . . . . Nominal 41%
	Glass Fiber Length . . . . . Nominal 1 inch

TYPICAL PROPERTIES -- CURED

<u>Test</u>	<u>Procedure</u>	<u>Value</u>
Specific Gravity, g/cc	D-792	1.3
Shrinkage, inch/inch, (mm)	D-955	-0.001 (-0.025)
Flexural Strength, psi (MPa) <sup>1</sup>	D-790	34,000 (235)
Flexural Modulus, psi (GPa) <sup>1</sup>	D-790	1.65x10 <sup>6</sup> (11.4)
Tensile Strength, psi (MPa) <sup>1</sup>	D-638	15,200 (105)
Izod Impact, notched, ft.lb./in. (J/M)	D-256	18 (960)
Water Absorption, %	D-570	0.13
1000 hrs @ 50° C, %	-	1.2
HDT, °F (°C)	D-648	(>250)
Flammability	FMVSS 302-75	Self Ext.

Molding Suggestions -- QC-8777 can be molded over a range of temperatures and pressures. For part thickness of 0.5 inches or less, molding temperatures of 270 to 320°F are suggested as a starting point, with molding pressure of 300 to 1000 psi. The lowest practical pressure should be used to assist in obtaining the lowest molded density. 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 300°F.

Precautions -- QC-8777 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.**

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