

Product Data Sheet

QC-7753

Heat Resistant Engineered Structural Composite (ESC) Molding Compound

QC-7753 is polyester ESC molding compound that is designed for applications requiring high strength, fire retardant properties, and resistance to elevated temperatures. It offers fast molding cycles and good surface appearance.

TYPICAL PROPERTIES -- UNCURED

Form	Rolled, Festooned Sheet 24" & 48" width	Color	Gray or Black
Glass Content50% minimum	Shelf Life: @75°F	1 month
Glass Length	Nominal 1-inch		

TYPICAL PROPERTIES -- CURED

<u>Test</u>	<u>Procedure</u>	<u>Value</u>
Specific Gravity, g/cc	ASTM D-792	1.74
Hardness, Barcol	ASTM D-2583	58
Water Absorption, %	ASTM D-570	0.15
Shrinkage, inch/inch (mm/mm)	ASTM D-955	0.0005 (0.013)
Flexural Strength, psi (MPa) ¹	ASTM D-790	58,000 (400)
Flexural Modulus, psi (GPa) ¹	ASTM D-790	2.3x10 ⁶ (15.8)
Tensile Strength, psi (MPa) ¹	ASTM D-638	32,000 (220)
Compression Strength, psi (MPa)	ASTM D-695	25,000 (172)
Izod Impact, notched, ft.lb./in. (J/M)	ASTM D-256	30 (1600)
Flammability	ISO 3795	Self Ext.
Shear Modulus, psi (GPa)	ASTM D-4065	6.5x10 ⁵ (4.5)
Heat Deflection Temperature °C (°F)	ASTM D-648	>260 (500)

Molding Suggestions -- QC-7753 is typically fabricated by compression molding in matched metal dies. Typical molding conditions are:

Temperature	270 - 315°F
Pressure	400 - 1200 psi
Cure Time, 0.060 inch section	1.25 minutes @ 290°F

Typical charge mold coverage will be 70-80%.

Handling Precautions-- Uncured QC-7753 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.