

Preliminary Product Data Sheet
QC-2150
Engineered Structural Composite (ESC) Molding Compound

QC-2150 is a glass reinforced phenolic ESC molding compound. It exhibits outstanding low flammability characteristics. QC-2150 is recommended for applications such as aircraft interiors and public transportation components requiring composite materials having very low flammability, low smoke, and minimal generation of toxic gases.

TYPICAL PROPERTIES -- UNCURED

Form	Rolled Sheet ,18" wide	Glass Content	Nominal 50%
Colors	Natural, Black	Glass Length	Nominal 1 inch
Shelf Life: @ 0°F	6 months	and @ 40°F	2 months

TYPICAL PROPERTIES -- CURED

<u>Test</u>	<u>Procedure</u>	<u>Value</u>
Specific Gravity	ASTM D-792	1.82
Shrinkage, inch/inch (mm/mm)	ASTM D-570	0.0015 (0.038)
Flexural Strength, psi (MPa) ¹	ASTM D-790	52,000 (358)
Flexural Modulus, psi (GPa) ¹	ASTM D-790	3.0x10 ⁶ (21.0)
Tensile Strength, psi (MPa) ¹	ASTM D-638	33,000 (227)
Izod Impact, notched, ft.lb./in. (J/M)	ASTM D-256	12 (640)

Since QC-2150 does not contain an acid catalyst, the use of external mold release agents is not normally required once the mold is conditioned. The use of one or more breathe cycles is recommended to allow the water generated during the curing reaction to escape.

The carrier film may tend to cling to the SMC. It is easiest to remove using a quick stripping motion, or the sheet may be cooled slightly.

Precautions: For maximum shelf life, QC-2150 must be stored cold. Storage for more than a few days at temperatures above 75°F may result in advancement of the material. QC-2150 contains glass fibers and should be handled carefully in order to minimize skin contact. Molding areas should be well-ventilated to minimize exposure to fumes. Presses and pre-heaters must be provided with local exhaust to remove vapors from work areas. If adequate ventilation is not available, a respirator approved for removing organic vapor must be used.

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