

Product Data Sheet
Lytex® 9063
High Glass Epoxy Engineered Structural Composite (ESC) Molding Compound

Lytex 9063 is a high performance, glass fiber reinforced epoxy ESC molding compound designed for military and aerospace structural applications requiring excellent mechanical properties, retention of properties at elevated temperatures, good chemical resistance and excellent electrical properties. It meets the requirements of MIL-M-46069 and MIL-M-46892.

TYPICAL PROPERTIES -- UNCURED

Form and Color	Sheet, Black	Glass Length (Std.)	0.5"
Shelf Life: @0°F	6 months	Glass Content	63%
Spiral Flow: @325°F (Mesa, 4000 psi)		12 inches, min.

TYPICAL PROPERTIES -- CURED

Test	Procedure	Value
Specific Gravity	ASTM D-792	1.82
Water Absorption, %	ASTM D-570	0.08
Shrinkage, inch/inch (mm/mm)	ASTM D-955	0.001 (0.001)
Flexural Strength, psi (MPa) ¹	ASTM D-790	66,000 (455)
Flexural Modulus, psi (GPa) ¹	ASTM D-790	2.6x10 ⁶ (18)
Tensile Strength, psi (MPa) ¹	ASTM D-638	35,000 (241)
Izod Impact, notched, ft.lb./in. (J/M)	ASTM D-256	35 (1869)
Dielectric Strength, vpm	ASTM D-149	400
Volume Resistivity, ohm-cm	ASTM D-257	3x10 ¹⁴
Dissipation Factor, 100 Hz	ASTM D-150	0.007
Dielectric Constant, 100 Hz	ASTM D-150	4.3
Heat Deflection Temperature	ASTM D-648	>575°F (>300°C)

Variations -- **Lytex 9063** modifications are available with glass lengths of 1 inch, 2 inches, and 0.25 inch. Other variations, including colors and flame retardants, can be made to special order.

Handling Suggestions-- **Lytex 9063** which is uncured should have minimum exposure to moisture. Dielectric preheating to 140-160°F is recommended as an aid in proper shaping and placing of the mold charge. Mold temperatures in the range of 250-325°F can be utilized, with 275°F suggested as a starting point. Cure times will be dependent on molding temperature and part thickness and will typically be 5-10 minutes. Detailed molding suggestions are available on request.

Precautions -- **Lytex 9063** 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 preheaters 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, 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.

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