

Preliminary Product Data Sheet
LYTEX® 4197
Engineered Structural Composite (ESC) Molding Compound

LYTEX 4197 is an epoxy high-performance, 3K tow carbon fiber (PAN) reinforced engineered structural composite (ESC) molding compound designed for military and aerospace structural applications requiring excellent mechanical properties, retention of properties at elevated temperatures, good chemical resistance, and low density.

TYPICAL PROPERTIES -- UNCURED

Form and Color Sheet, Black Fiber Length 2 inch
Shelf Life: @ 0°F 6 Months Carbon Fiber Content 55%

TYPICAL PROPERTIES -- CURED

<u>Test</u>	<u>Procedure</u>	<u>Value</u>
Specific Gravity	ASTM D-792	1.45
Shrinkage, inch/inch (mm/mm)	ASTM D-955	0.000 (0.000)
Flexural Strength, psi (MPa) ¹	ASTM D-790	100,000 (689)
Flexural Modulus, psi (GPa) ¹	ASTM D-790	6.8x10 ⁶ (46.5)
Tensile Strength, psi (MPa) ¹	ASTM D-638	42,000 (275)
Tensile Modulus, psi (GPa) ¹	ASTM D-638	9.0x10 ⁶ (62)
Izod Impact, notched, ft.lb/in. (J/M)	ASTM D-256	28 (1500)

Handling Suggestions -- LYTEX 4197 that is uncured should have minimum exposure to moisture. Mold temperatures in the range of 265 - 330°F can be utilized, with 300°F suggested as a starting point. Cure times will be dependent on temperature and part thickness and will typically be 5 to 10 minutes. Detailed molding suggestions are available upon request.

Precautions -- LYTEX 4197 contains carbon fibers and should be handled carefully in order to minimize skin contact. Molding areas should be well-ventilated to minimize exposure to fumes. Presses 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. Care must be taken to prevent contact of carbon fibers with electrical equipment.

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.