Lytex 4149

Epoxy; Epoxide

Quantum Composites Inc.

Message:

Lytex 4149 is a high-performance, 3K tow carbon fiber (PAN) reinforced epoxy sheet 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.

General Information			
Filler / Reinforcement	Carbon fiber reinforced material, 55% filler by weight		
Features	Conductivity Good chemical resistance		
Appearance	Black		
Forms	SMC-Sheet Molding Compound		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.45	g/cm³	ASTM D792
Apparent Density	1.45	g/cm³	ASTM D1895
Molding Shrinkage - Flow	0.0	%	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	55200	MPa	ASTM D638
Tensile Strength	290	MPa	ASTM D638
Tensile Elongation (Break)	0.49	%	ASTM D638
Flexural Modulus	34500	MPa	ASTM D790
Flexural Strength	614	MPa	ASTM D790
Compressive Modulus	31700	MPa	ASTM D695
Compressive Strength	276	MPa	ASTM D695
Shear Modulus	11000	MPa	ASTM D732
Shear Strength	207	MPa	ASTM D732
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	960	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	302	°C	ASTM D648
Continuous Use Temperature	177	°C	ASTM D794
CLTE - Flow	3.6E-6	cm/cm/°C	ASTM D696
Thermal Conductivity	0.47	W/m/K	ASTM C177
Thermoset	**Nominal Value**	**Unit**	
Shelf Life (-12°C)	26	wk	
Demold Time (138°C)	5.0 - 10	min	
Additional Information			

The values reported as Shear Modulus, ASTM D732, and Shear Strength, ASTM D732, were tested in accordance with ASTM D5379.The values reported as Shear Modulus and Shear Strength were tested in-plane.Shear Modulus, ASTM D5379, interlaminar: 420,000 psiShear Strength, ASTM D5379, interlaminar: 9,500 psi

Injection	Nominal Value	Unit
Mold Temperature	129 - 166	°C

Recommended distributors for this material

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