

Technical Data Sheet  
**Quantum Lytex 9063**  
**BK-E**  
 Engineered Composites



**Product Description**

E-glass reinforced epoxy molding compound

**General**

Material Status	• Commercial: Active		
Availability	• North America	• Europe	• Asia Pacific
Filler / Reinforcement	• E-glass Fiber	• Nominal 63% w/w	• Nominal 1/2" (12.5 mm) Length
Features	• Fatigue Resistance • High Strength	• High Stiffness • Shelf Life 6 months @ 10°F or below	• Black or Natural Color
Processing Method	• <b>Lytex 9063 BK-E</b> can be molded at temperatures in the range of 280-330°F, with 310°F suggested as a starting point. Cure times will be dependent on molding temperature and part thickness and will typically be 10-15 minutes. Detailed molding suggestions are available on request. Cool molded parts at ambient temperature. A cooling fixture may be needed depending on part thickness and geometry. Matched metal molds.		
Resin	• Epoxy		

Physical	Typical	Unit	Test Method
Density	1.82	g/cm <sup>3</sup>	ASTM D792
Shrinkage	<0.001	in/in	ASTM D955
CLTE, X – Y plane	14	ppm/°C	ASTM E831
CLTE, Z plane	58	ppm/°C	ASTM E831
Poisson's Ratio	0.33		ASTM D638
Mechanical (Machined)	Typical	Unit	Test Method
Tensile Modulus	2.6 E+6 (18,000)	psi (MPa)	ASTM D3039
Tensile Strength	28,000 (193)	psi (MPa)	ASTM D3039
Flexural Modulus	2.6 E+6 (18,000)	psi (MPa)	ASTM D790
Flexural Strength	59,000 (407)	psi (MPa)	ASTM D790
Short Beam Shear	6,500 (44.8)	psi (MPa)	ASTM D2344
Mechanical (As Molded)	Typical	Unit	Test Method
Tensile Modulus	3.3 E+6 (22,800)	psi (MPa)	ASTM D638
Tensile Strength	35,000 (241)	psi (MPa)	ASTM D638
Flexural Modulus (RT)	2.6 E+6 (18,000)	psi (MPa)	ASTM D790
Flexural Strength	66,000 (455)	psi (MPa)	ASTM D790
Impact	Typical	Unit	Test Method
Izod Notched Impact Strength	35 (1869)	ft-lb/in (J/m)	ASTM D256
Thermal	Typical	Unit	Test Method
Glass Transition T <sub>t</sub> , Tan Delta	329 (165)	°F (°C)	ASTM D7028
Glass Transition T <sub>g</sub> , Storage Modulus	248 (120)	°F (°C)	ASTM D7028
Heat Deflection Temperature	>575 (300)	°F (°C)	ASTM D7648
Electrical	Typical	Unit	Test Method
Dielectric Strength	450	Volts/mil (kV/mm)	ASTM D149
Volume Resistivity	1.1E+16	ohm-cm	ASTM D257
Dissipation Factor	0.0049	100 Hz	ASTM D150
Dielectric Constant	4.3	100 Hz	ASTM D150

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**Notes**

These are typical property values not to be construed as specification limits.

**Processing Techniques**

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

**Company Information**

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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