

Quantum HTG Lytex 4204 BK

Engineered Composites



Product Description			
E-glass reinforced epoxy molding compound designed for applications at elevated temperatures.			
General			
Material Status	• Commercial: Active		
Availability	• North America	• Europe	• Asia Pacific
Filler / Reinforcement	• E-glass Fiber	• Nominal 63% w/w	• Nominal 1" (12.5 mm) Length
Features	• Fatigue Resistance	• High Stiffness	• Black or Natural Color
	• High Strength	• Shelf Life 6 months @ 10°F or below	
Processing Method	• Lytex 9063 BK-E High Tg 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 Average Lot	Unit	Test Method
Density	1.84	g/cm ³	ASTM D792
Shrinkage	<0.0015	in/in	ASTM D955
DEA Gel/Cure	17.1/97.8	Seconds	
Barcol Hardness	75	Barcol Units	ASTM D2583
Mechanical (As Molded) @25C	Typical Average Lot	Unit	Test Method
Tensile Modulus	4.376 E+6 (30,171)	psi (MPa)	ASTM D639
Tensile Strength	37,100 (257.8)	psi (MPa)	ASTM D639
Flexural Modulus	3.300 E+6 (22,752)	psi (MPa)	ASTM D790
Flexural Strength	88,500 (610.1)	psi (MPa)	ASTM D790
Mechanical (As Molded) @150C	Typical Average Lot	Unit	Test Method
Tensile Modulus	3.452 E+6 (23,800)	psi (MPa)	ASTM D639
Tensile Strength	29,292 (202)	psi (MPa)	ASTM D639
Flexural Modulus	2.902 E+6 (20,000)	psi (MPa)	ASTM D790
Flexural Strength	66,715 (460)	psi (MPa)	ASTM D790
Mechanical (As Molded) @175C	Typical Average Lot	Unit	Test Method
Tensile Modulus	2.671 E+6 (18,416)	psi (MPa)	ASTM D639
Tensile Strength	23,900 (164.8)	psi (MPa)	ASTM D639
Flexural Modulus	2.645E+6 (18,237)	psi (MPa)	ASTM D790
Flexural Strength	46,500 (320.6)	psi (MPa)	ASTM D790
Mechanical (As Molded) @200C	Typical Average Lot	Unit	Test Method
Tensile Modulus	2.466E+6 (17,002)	psi (MPa)	ASTM D638
Tensile Strength	15,800 (108.9)	psi (MPa)	ASTM D638
Flexural Modulus (RT)	2.248 E+6 (15,499)	psi (MPa)	ASTM D790
Flexural Strength	29,950 (206.8)	psi (MPa)	ASTM D790
Impact Typical Average @25C	Typical	Unit	Test Method
Izod Notched Impact Strength	44 (2350)	ft-lb/in (J/m)	ASTM D256

Technical Data Sheet

Quantum HTG *Lytex* 4084 BK

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Thermal	Typical	Unit	Test Method
Glass Transition T _g , Tan Delta	427 (219.5)	°F (°C)	ASTM D7028

Note: Properties taken from
Specimens Post-Cured @ 240C
for 4 hours

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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