



LubriOne™ LB9800-8001 AR Black

Polyetheretherketone

Key Characteristics

Product Description			
Carbon Fiber, PTFE and Graphite Filled Standard Flow PEEK Compound			
General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Carbon Fiber	• Graphite Powder	• PTFE Micropowder
Features	• High Heat Resistance • Low Friction	• Lubricated • Wear Resistant	
Uses	• Appliance Components • Automotive Applications • Bearings	• Business Equipment • Consumer Applications • Conveyor Parts	• Gears • Industrial Applications • Printer Parts
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density ² (73°F (23°C))	1.43 g/cm ³	1.43 g/cm ³	ISO 1183
Molding Shrinkage - Flow 73°F (23°C), 0.126 in (3.20 mm)	1.0E-3 to 3.0E-3 in/in	0.10 to 0.30 %	ASTM D955
Molding Shrinkage - Across Flow 73°F (23°C), 0.126 in (3.20 mm)	0.015 to 0.017 in/in	1.5 to 1.7 %	ASTM D955
Water Absorption (73°F (23°C), 24 hr)	0.040 %	0.040 %	ASTM D570
Water Absorption (Saturation, 73°F (23°C))	0.10 %	0.10 %	ASTM D570
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus 73°F (23°C), 0.126 in (3.20 mm)	1.81E+6 psi	12500 MPa	ISO 527-2/1/5
Tensile Stress Break, 73°F (23°C), 0.126 in (3.20 mm) Break, 248°F (120°C), 0.126 in (3.20 mm)	21000 psi 13800 psi	145 MPa 95.0 MPa	ISO 527-2/1/5
Tensile Strain Break, 73°F (23°C), 0.126 in (3.20 mm)	3.0 %	3.0 %	ISO 527-2/1/5
Flexural Modulus ³ 73°F (23°C), 0.126 in (3.20 mm) 248°F (120°C), 0.126 in (3.20 mm)	1.52E+6 psi 1.51E+6 psi	10500 MPa 10400 MPa	ASTM D790
Flexural Strength ³ Break, 73°F (23°C), 0.126 in (3.20 mm) Break, 248°F (120°C), 0.126 in (3.20 mm)	31200 psi 23200 psi	215 MPa 160 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	3.8 ft·lb/in ²	8.0 kJ/m ²	ISO 179

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Impact	Typical Value (English)	Typical Value (SI)	Test Method
Charpy Unnotched Impact Strength 73°F (23°C)	19 ft·lb/in ²	40 kJ/m ²	ISO 179
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Shore Hardness (Shore D)	84	84	ISO 868
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.126 in (3.20 mm)	599 °F	315 °C	ASTM D648
Glass Transition Temperature	295 °F	146 °C	DSC
Melting Temperature	649 °F	343 °C	DSC
CLTE - Flow < 289°F (< 143°C) > 289°F (> 143°C)	6.7E-6 in/in/°F 7.2E-6 in/in/°F	1.2E-5 cm/cm/°C 1.3E-5 cm/cm/°C	ISO 11359-2
CLTE - Transverse < 289°F (< 143°C) > 289°F (> 143°C)	4.2E-5 in/in/°F 1.2E-4 in/in/°F	7.5E-5 cm/cm/°C 2.2E-4 cm/cm/°C	ISO 11359-2
Thermal Conductivity 140°F (60°C) ⁴ 140°F (60°C) ⁵	3.2 Btu·in/hr/ft ² /°F 9.4 Btu·in/hr/ft ² /°F	0.46 W/m/K 1.4 W/m/K	ASTM E1461
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Surface Resistivity	1.0E+10 to 1.0E+13 ohms	1.0E+10 to 1.0E+13 ohms	ASTM D257
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating (0.031 in (0.8 mm))	V-0	V-0	Internal Method

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	302 to 320 °F	150 to 160 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Processing (Melt) Temp	662 to 761 °F	350 to 405 °C
Mold Temperature	356 to 392 °F	180 to 200 °C

Injection Notes

Injection Pressure: MED-HIGH
Hold Pressure: MED-HIGH
Screw Speed: MODERATE
Back Pressure: LOW

Notes

¹ Typical values are not to be construed as specifications.

² ±0.03

³ 0.051 in/min (1.3 mm/min)

⁴ through-plane

⁵ in-plane

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