

LubriOne™ LB9800-8002 AR Black

Polyetheretherketone

PolyOne Corporation

Message:

LubriOne™ Lubricating and wear-resistant polymers are specially used for self-lubricating materials, and their friction coefficient is low, which can improve wear resistance. LubriOne polymers have been proven to reduce friction, noise, vibration, heat generation and improve product durability.

General Information			
Filler / Reinforcement	PTFE ultra fine powder		
	Graphite powder		
	Carbon fiber reinforced material		
Features	Low friction coefficient		
	Good wear resistance		
	Heat resistance, high		
	Lubrication		
Uses	Gear		
	Conveyor accessories		
	Industrial application		
	Home appliance components		
	Application in Automobile Field		
	Business equipment		
	Consumer goods application field		
	Printing machine parts		
	Bearing		
RoHS Compliance	RoHS compliance		
Appearance	Black		
Forms	Particle		
Physical	Nominal Value	Unit	Test Method
Density ¹ (23°C)	1.43	g/cm ³	ISO 1183
Molding Shrinkage			ASTM D955
Flow: 23°C, 3.20mm	0.10 - 0.30	%	ASTM D955
Lateral flow: 23°C, 3.20mm	1.5 - 1.7	%	ASTM D955
Water Absorption			ASTM D570
23°C, 24 hr	0.040	%	ASTM D570
Saturated, 23°C	0.10	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	84		ISO 868

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C, 3.20 mm)	12000	MPa	ISO 527-2/1/5
Tensile Stress			ISO 527-2/1/5
Fracture, 23°C, 3.20mm	155	MPa	ISO 527-2/1/5
Fracture, 120°C, 3.20mm	115	MPa	ISO 527-2/1/5
Tensile Strain (Break, 23°C, 3.20 mm)	2.0	%	ISO 527-2/1/5
Flexural Modulus ²			ASTM D790
23°C, 3.20 mm	12000	MPa	ASTM D790
120°C, 3.20 mm	11500	MPa	ASTM D790
Flexural Strength ³			ASTM D790
Fracture, 23°C, 3.20mm	225	MPa	ASTM D790
Fracture, 120°C, 3.20mm	185	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	6.0	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	35	kJ/m ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm)	315	°C	ASTM D648
Glass Transition Temperature	145	°C	DSC
Melting Temperature	343	°C	DSC
Linear thermal expansion coefficient			ISO 11359-2
Flow: < 143°C	1.2E-5	cm/cm/°C	ISO 11359-2
Flow: > 143°C	1.3E-5	cm/cm/°C	ISO 11359-2
Lateral: < 143°C	7.5E-5	cm/cm/°C	ISO 11359-2
Lateral: > 143°C	2.2E-4	cm/cm/°C	ISO 11359-2
Thermal Conductivity			ASTM C177
60°C ⁴	0.46	W/m/K	ASTM C177
60°C ⁵	1.4	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+10 - 1.0E+13	ohms	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.800 mm)	V-0		Internal method
Injection	Nominal Value	Unit	
Drying Temperature	150 - 160	°C	
Drying Time	4.0 - 6.0	hr	
Processing (Melt) Temp	350 - 390	°C	
Mold Temperature	180 - 200	°C	
Injection instructions			
Injection Pressure: MED-HIGHHold Pressure: MED-HIGHScrew Speed: MODERATEBack Pressure: LOW			
NOTE			
1.	±0.03		
2.	1.3 mm/min		

3.	1.3 mm/min
4.	through-plane
5.	in-plane

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