LubriOne™ AT-000/18T 2S NATURAL

Acetal (POM) Copolymer

Key Characteristics

Product Description
LubriOne™ Lubricated and Wear-Resistant Compounds have been specifically formulated to be self-lubricating materials, offering low coefficient of friction and improved wear resistance properties. LubriOne compounds have been demonstrated to reduce friction, noise, vibration, heat buildup and improve product durability.

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Copolymer • Low Friction	• Lubricated • Wear Resistant	
Uses	• Appliance Components • Automotive Applications • Bearings • Business Equipment	• Consumer Applications • Conveyor Parts • Gears • Industrial Applications	• Printer Parts • Pulleys • Rollers
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.47	1.47	ASTM D792
Density	1.47 g/cm³	1.47 g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	9.0 g/10 min	9.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.020 to 0.030 in/in	2.0 to 3.0 %	ASTM D955
Molding Shrinkage - Across Flow	0.010 to 0.030 in/in	1.0 to 3.0 %	ASTM D955
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus [2]	257000 psi	1770 MPa	ASTM D638
Tensile Modulus	290000 psi	2000 MPa	ISO 527-2
Tensile Strength			ASTM D638
Yield [3]	6800 psi	46.9 MPa	
Yield [2]	5800 psi	40.0 MPa	
Tensile Strength [2] (Break)	5800 psi	40.0 MPa	ASTM D638
Tensile Stress	5800 psi	40.0 MPa	ISO 527-2
Tensile Elongation [2] (Break)	30 %	30 %	ASTM D638
Tensile Strain (Break)	20 %	20 %	ISO 527-2
Flexural Modulus [4]	252000 psi	1740 MPa	ASTM D790
Flexural Modulus	247000 psi	1700 MPa	ISO 178
Flexural Strength [4]	9100 psi	62.7 MPa	ASTM D790
Flexural Stress	8700 psi	60.0 MPa	ISO 178
Coefficient of Friction			ASTM D1894
vs. Steel - Dynamic	0.10	0.10	
vs. Steel - Static	0.14	0.14	

Impact	Typical Value (English)	Typical Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	1.9 ft·lb/in²	4.0 kJ/m²	ISO 179
Charpy Unnotched Impact Strength			ISO 179
73°F (23°C)	24 ft·lb/in²	50 kJ/m²	
Notched Izod Impact			ASTM D256A
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	0.70 ft·lb/in	37 J/m	
Thermal	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.250 in (6.35 mm)	304 °F	151 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	178 °F	81.1 °C	
Flammability	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Flame Rating (0.06 in (1.6 mm))	HB	HB	UL 94

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	176 to 212 °F	80 to 100 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Processing (Melt) Temp	374 to 410 °F	190 to 210 °C
Mold Temperature	167 to 212 °F	75 to 100 °C

Notes

[1] Typical values are not to be construed as specifications.

[2] Type I, 0.20 in/min (5.1 mm/min)

[3] Type I, 2.0 in/min (51 mm/min)

[4] 0.050 in/min (1.3 mm/min)

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