



# 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 <sup>1</sup>

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.47	1.47	ASTM D792
Density	1.47 g/cm <sup>3</sup>	1.47 g/cm <sup>3</sup>	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 <sup>2</sup>	257000 psi	1770 MPa	ASTM D638
Tensile Modulus	290000 psi	2000 MPa	ISO 527-2
Tensile Strength			ASTM D638
Yield <sup>3</sup>	6800 psi	46.9 MPa	
Yield <sup>2</sup>	5800 psi	40.0 MPa	
Tensile Strength <sup>2</sup> (Break)	5800 psi	40.0 MPa	ASTM D638
Tensile Stress	5800 psi	40.0 MPa	ISO 527-2
Tensile Elongation <sup>2</sup> (Break)	30 %	30 %	ASTM D638
Tensile Strain (Break)	20 %	20 %	ISO 527-2
Flexural Modulus <sup>4</sup>	252000 psi	1740 MPa	ASTM D790
Flexural Modulus	247000 psi	1700 MPa	ISO 178
Flexural Strength <sup>4</sup>	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	

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

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> Type I, 0.20 in/min (5.1 mm/min)

<sup>3</sup> Type I, 2.0 in/min (51 mm/min)

<sup>4</sup> 0.050 in/min (1.3 mm/min)

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