



## LubriOne™ 5209 FPL 20 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 • Good Wear Resistance	• Low Friction • Lubricated	
Uses	• Appliance Components	• Conveyor Parts	• Printer Parts
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		

### Technical Properties <sup>1</sup>

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.51	1.51	ASTM D792
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>	351000 psi	2420 MPa	ASTM D638
Tensile Strength <sup>2</sup> (Yield)	6100 psi	42.1 MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	26 %	26 %	ASTM D638
Flexural Modulus <sup>3</sup>	260000 psi	1790 MPa	ASTM D790
Flexural Strength <sup>3</sup>	9900 psi	68.3 MPa	ASTM D790
Coefficient of Friction			ASTM D1894
vs. Steel - Dynamic	0.12	0.12	
vs. Steel - Static	0.13	0.13	
Impact	Typical Value (English)	Typical Value (SI)	Test Method
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)	307 °F	153 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	181 °F	82.8 °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> 0.050 in/min (1.3 mm/min)

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