LubriOne™ LB4220-0001 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
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.43	1.43	ASTM D792
Molding Shrinkage - Flow	0.015 to 0.025 in/in	1.5 to 2.5 %	ASTM D955
Water Absorption (24 hr, 0.125 in (3.18 mm))	0.050 %	0.050 %	ASTM D570
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus [2]	264000 psi	1820 MPa	ASTM D638
Tensile Strength [2] (Yield)	7800 psi	53.8 MPa	ASTM D638
Flexural Modulus	291000 psi	2010 MPa	ASTM D790
Flexural Strength	10900 psi	75.2 MPa	ASTM D790
Coefficient of Friction			ASTM D1894
vs. Steel - Dynamic	0.12	0.12	
vs. Steel - Static	0.18	0.18	
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	0.90 ft·lb/in	48 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)	302 °F	150 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	189 °F	87.0 °C	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	200 °F	93.3 °C
Drying Time	1.0 to 2.0 hr	1.0 to 2.0 hr
Suggested Max Moisture	0.15 to 0.20 %	0.15 to 0.20 %
Rear Temperature	330 to 350 °F	166 to 177 °C
Middle Temperature	350 to 370 °F	177 to 188 °C
Front Temperature	370 to 390 °F	188 to 199 °C
Nozzle Temperature	380 to 410 °F	193 to 210 °C
Mold Temperature	170 to 200 °F	76.7 to 93.3 °C

Notes

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

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

CONTACT INFORMATION

Americas

United States - Avon Lake
+1 440 930 1000

United States - McHenry
+1 815 385 8500

Asia

China - Guangzhou
+86 20 8732 7260

China - Shenzhen
+86 755 2969 2888

China - Suzhou
+86 512 6823 24 38

China - Suzhou
+86 512 6265 2600

Hong Kong -
+852 2690 5332

Taiwan - Yonghe City,
+886 9396 99740, +886 2929 1849

Europe

Germany - Gaggenau
+49 7225 6802 0

Spain - Barbastro (Huesca)
+34 974 310 314

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Better Business Solutions. SM

www.polyone.com

PolyOne Americas
33587 Walker Road
Avon Lake, Ohio 44012
United States
+1 440 930 1000
+1 866 POLYONE

PolyOne Asia
No. 88 Guoshoujing Road
Z.J Hi-tech Park, Pudong
Shanghai, 201203, China
+86 21 5080 1188

PolyOne Europe
6 Giällewee
+352 269 050 35