LubriOne™ PC-20GF/15T

Polycarbonate

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	• 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
Specific Gravity	1.45	1.45	ASTM D792
Molding Shrinkage - Flow	2.5E-3 to 4.0E-3 in/in	0.25 to 0.40 %	ASTM D955
Water Absorption (24 hr, 0.125 in (3.18 mm))	0.080 %	0.080 %	ASTM D570
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus [2]	225000 psi	1550 MPa	ASTM D638
Tensile Strength [2] (Yield)	12000 psi	82.7 MPa	ASTM D638
Tensile Elongation [2] (Break)	5.0 to 10 %	5.0 to 10 %	ASTM D638
Flexural Modulus	650000 psi	4480 MPa	ASTM D790
Flexural Strength	21000 psi	145 MPa	ASTM D790
Coefficient of Friction			ASTM D1894
vs. Steel - Dynamic	0.43	0.43	
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	2.8 ft·lb/in	150 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)	291 °F	144 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	280 °F	138 °C	
Electrical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Surface Resistivity	1.0E+14 ohms	1.0E+14 ohms	ASTM D257
Volume Resistivity	1.0E+14 ohms·cm	1.0E+14 ohms·cm	ASTM D257

Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating	V-0	V-0	UL 94

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	248 to 266 °F	120 to 130 °C
Drying Time	4.0 hr	4.0 hr
Processing (Melt) Temp	550 to 600 °F	288 to 316 °C
Mold Temperature	176 to 230 °F	80.0 to 110 °C

Notes

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

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

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