

SABIC Innovative Plastics LNP LUBRICOMP DL004 PC

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

LNP* Lubricomp* DL004 is a compound based on Polycarbonate resin containing 20% PTFE. Added features of this material include:
Internally Lubricated.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-LUBRICOMP-DL004-PC.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.30 g/cc	1.30 g/cc	ASTM D792
Density	1.30 g/cc	0.0470 lb/in ³	ASTM D792
	1.30 g/cc	0.0470 lb/in ³	ISO 1183
Moisture Absorption	0.250 %	0.250 %	50% RH, 24 hrs; ASTM D570
	0.360 %	0.360 %	23 ^o C / 50% RH; ISO 62
Linear Mold Shrinkage, Flow	0.0059 cm/cm	0.0059 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.0064 cm/cm	0.0064 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
	0.0060 - 0.0080 cm/cm	0.0060 - 0.0080 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	39.0 MPa	5660 psi	Type I, 5 mm/min; ASTM D638
	39.0 MPa	5660 psi	
Tensile Strength, Yield	43.0 MPa	6240 psi	Type I, 5 mm/min; ASTM D638
	44.0 MPa	6380 psi	
Elongation at Break	28.9 %	28.9 %	Type I, 5 mm/min; ASTM D638
	29.3 %	29.3 %	
Elongation at Yield	5.9 %	5.9 %	5 mm/min; ISO 527

Mechanical Properties	Metric	English	Comments
Tensile Modulus	2.05 GPa	297 ksi	1 mm/min; ISO 527
	2.08 GPa	302 ksi	50 mm/min; ASTM D638
Flexural Strength	63.0 MPa	9140 psi	ISO 178
	73.0 MPa	10600 psi	ASTM D790
Flexural Modulus	1.93 GPa	280 ksi	2 mm/min; ISO 178
	2.06 GPa	299 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	1.07 J/cm	2.00 ft-lb/in	ASTM D256
Izod Impact, Unnotched	18.7 J/cm	35.0 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	11.0 kJ/m ²	5.23 ft-lb/in ²	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	178 kJ/m ²	84.7 ft-lb/in ²	80*10*4; ISO 180/1U
Dart Drop, Total Energy	24.0 J	17.7 ft-lb	Instrumented Impact Energy @ peak; ASTM D3763
	24.0 J @Temperature 23.0 Â°C	17.7 ft-lb @Temperature 73.4 Â°F	ASTM D3763
Impact Test	21.0 J	15.5 ft-lb	Multiaxial Impact; ISO 6603
Coefficient of Friction, Dynamic	0.25	0.25	ASTM D3702 Modified
Coefficient of Friction, Static	0.21	0.21	ASTM D3702 Modified
K (wear) Factor	14.1 x 10 ⁻⁸ mm ³ /N-M	7.00 x 10 ⁻¹⁰ in ³ - min/ft-lb-hr	Washer; ASTM D3702 Modified

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	77.0 Âµm/m-Â°C	42.8 Âµin/in-Â°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	77.4 Âµm/m-Â°C	43.0 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
CTE, linear, Transverse to Flow	75.6 Âµm/m-Â°C	42.0 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	76.0 Âµm/m-Â°C	42.2 Âµin/in-Â°F	

Thermal Properties	Metric @ Temperature -40.0 - 40.0 Â°C	English @ Temperature -40.0 - 104 Â°F	ISO 11358-2 Comments
Deflection Temperature at 0.46 MPa (66 psi)	143 Â°C	289 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	141 Â°C @Thickness 3.20 mm	286 Â°F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	129 Â°C	264 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	128 Â°C @Thickness 3.20 mm	262 Â°F @Thickness 0.126 in	unannealed; ASTM D648

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