

SABIC Innovative Plastics LNP LUBRICOMP RP003 PA 66

Category : Polymer , Thermoplastic , Nylon , Nylon 66

Material Notes:

LNP* LUBRICOMP* RP003 is a compound based on Nylon 66 resin containing 15% PTFE/Silicone. Added feature of this material is: Wear Resistant.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-LUBRICOMP-RP003-PA-66.php

Physical Properties	Metric	English	Comments
Density	1.27 g/cc	0.0459 lb/in ³	ASTM D792
	1.27 g/cc	0.0459 lb/in ³	ISO 1183
Moisture Absorption	0.600 %	0.600 %	50% RH, 24 hrs; ASTM D570
	0.970 %	0.970 %	23 ^o C / 50% RH; ISO 62
Linear Mold Shrinkage, Flow	>= 0.020 cm/cm	>= 0.020 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.010 - 0.030 cm/cm	0.010 - 0.030 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	49.0 MPa	7110 psi	Type I, 5 mm/min; ASTM D638
	55.0 MPa	7980 psi	5 mm/min; ISO 527
Tensile Strength, Yield	52.0 MPa	7540 psi	Type I, 5 mm/min; ASTM D638
	55.0 MPa	7980 psi	5 mm/min; ISO 527
Elongation at Break	4.7 %	4.7 %	Type I, 5 mm/min; ASTM D638
	4.7 %	4.7 %	5 mm/min; ISO 527
Elongation at Yield	4.6 %	4.6 %	Type I, 5 mm/min; ASTM D638
	4.8 %	4.8 %	5 mm/min; ISO 527
Tensile Modulus	2.69 GPa	390 ksi	50 mm/min; ASTM D638
	2.96 GPa	429 ksi	1 mm/min; ISO 527
Flexural Strength	73.0 MPa	10600 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Yield Strength			1.3 mm/min, 50 mm span; ASTM

Mechanical Properties	73.0 MPa Metric	10600 psi English	D790 Comments
Flexural Modulus	2.26 GPa	328 ksi	1.3 mm/min, 50 mm span; ASTM D790
	2.58 GPa	374 ksi	2 mm/min; ISO 178
Izod Impact, Notched	0.370 J/cm	0.693 ft-lb/in	ASTM D256
Izod Impact, Unnotched	3.79 J/cm	7.10 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	4.00 kJ/m ²	1.90 ft-lb/in ²	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	26.0 kJ/m ²	12.4 ft-lb/in ²	80*10*4; ISO 180/1U
Dart Drop, Total Energy	1.00 J	0.738 ft-lb	Instrumented Impact Energy @ peak; ASTM D3763
Coefficient of Friction, Dynamic	0.22	0.22	ASTM D3702 Modified
Coefficient of Friction, Static	0.16	0.16	ASTM D3702 Modified
K (wear) Factor	20.1 x 10 ⁻⁸ mm ³ /N-M	10.0 x 10 ⁻¹⁰ in ³ -min/ft-lb-hr	Washer; ASTM D3702 Modified

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	90.0 Åµm/m-Å°C	50.0 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
	91.0 Åµm/m-Å°C	50.6 Åµin/in-Å°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
CTE, linear, Transverse to Flow	95.4 Åµm/m-Å°C	53.0 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
	96.0 Åµm/m-Å°C	53.3 Åµin/in-Å°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
Deflection Temperature at 0.46 MPa (66 psi)	221 Å°C	430 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	201 Å°C	394 Å°F	
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	66.0 Å°C	151 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	59.0 Å°C	138 Å°F	
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D648

Thermal Properties

Metric

English

Comments

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