

LNP™ LUBRICOMP™ RP003 compound

Polyamide 66

SABIC Innovative Plastics

Message:

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

Also known as: LNP* LUBRICOMP* Compound RL-4530

Product reorder name: RP003

General Information			
Additive	PTFE + Silicone Lubricant (15%)		
Features	Good Wear Resistance		
	Lubricated		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.27	g/cm ³	ASTM D792, ISO 1183
Molding Shrinkage			
Across Flow : 24 hr	1.0 to 3.0	%	ASTM D955
Flow : 24 hr	1.0 to 3.0	%	ISO 294-4
Water Absorption			
24 hr, 50% RH	0.60	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.97	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2690	MPa	ASTM D638
--	2960	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	52.0	MPa	ASTM D638
Yield	55.0	MPa	ISO 527-2/5
Break ³	49.0	MPa	ASTM D638
Break	55.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	4.6	%	ASTM D638
Yield	4.8	%	ISO 527-2/5
Break ⁵	4.7	%	ASTM D638
Break	4.7	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	2260	MPa	ASTM D790
-- ⁷	2590	MPa	ISO 178
Flexural Strength ⁸			ASTM D790
Yield, 50.0 mm Span	73.4	MPa	

Break, 50.0 mm Span	73.4	MPa	
Coefficient of Friction			ASTM D3702 Modified
vs. Itself - Dynamic	0.23		
vs. Itself - Static	0.17		
Wear Factor - Washer	10.0	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D3702 Modified
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	37	J/m	ASTM D256
23°C ⁹	4.2	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	380	J/m	ASTM D4812
23°C ¹⁰	26	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Energy at Peak Load	1.40	J	ASTM D3763
--	0.900	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	201	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹¹	221	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	59.4	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹²	66.0	°C	ISO 75-2/Af
CLTE			
Flow : -40 to 40°C	9.0E-5	cm/cm/°C	ASTM E831
Flow : -40 to 40°C	9.1E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	9.5E-5	cm/cm/°C	ASTM E831
Transverse : -40 to 40°C	9.6E-5	cm/cm/°C	ISO 11359-2
Injection	Nominal Value	Unit	
Drying Temperature	82.2	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.15 to 0.25	%	
Rear Temperature	266 to 277	°C	
Middle Temperature	282 to 293	°C	
Front Temperature	293 to 304	°C	
Processing (Melt) Temp	277 to 288	°C	
Mold Temperature	82.2 to 93.3	°C	
Back Pressure	0.172 to 0.344	MPa	
Screw Speed	30 to 60	rpm	
NOTE			
1.	50 mm/min		
2.	Type I, 5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	Type I, 5.0 mm/min		

5.	Type I, 5.0 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*4
10.	80*10*4
11.	80*10*4 mm
12.	80*10*4 mm

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