

LNP™ LUBRICOMP™ WP004 compound

Polybutylene Terephthalate

SABIC Innovative Plastics

Message:

LNP* LUBRICOMP* WP004 is a compound based on PBT resin containing 20% PTFE/Silicone. Added feature of this grade is: Wear Resistant.

Also known as: LNP* LUBRICOMP* Compound WL-4540

Product reorder name: WP004

General Information			
Additive	PTFE + Silicone Lubricant (20%)		
Features	Good Wear Resistance		
	Lubricated		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.42	g/cm ³	ISO 1183
Molding Shrinkage			ASTM D955
Flow : 24 hr	1.0 to 3.0	%	
Across Flow : 24 hr	1.0 to 3.0	%	
Water Absorption			
24 hr, 50% RH	0.050	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.090	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2280	MPa	ASTM D638
--	2240	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	37.0	MPa	ASTM D638
Yield	37.0	MPa	ISO 527-2/5
Break ³	37.0	MPa	ASTM D638
Break	37.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	11	%	ASTM D638
Yield	11	%	ISO 527-2/5
Break ⁵	11	%	ASTM D638
Break	12	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	2190	MPa	ASTM D790
-- ⁷	2130	MPa	ISO 178
Flexural Stress	64.0	MPa	ISO 178
Coefficient of Friction			ASTM D3702 Modified

vs. Itself - Dynamic	0.24		
vs. Itself - Static	0.13		
Wear Factor - Washer	16.0	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D3702 Modified
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	30	J/m	ASTM D256
23°C ⁸	3.7	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	270	J/m	ASTM D4812
23°C ⁹	20	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	2.20	J	ASTM D3763
--	0.700	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	182	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹⁰	158	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	55.4	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹¹	54.0	°C	ISO 75-2/Af
CLTE			ASTM D696
Flow : -30 to 30°C	6.8E-5	cm/cm/°C	
Transverse : -30 to 30°C	1.1E-4	cm/cm/°C	
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.050	%	
Rear Temperature	221 to 232	°C	
Middle Temperature	243 to 254	°C	
Front Temperature	260 to 271	°C	
Processing (Melt) Temp	238 to 266	°C	
Mold Temperature	82.2 to 98.9	°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.	80*10*4		

9.	80*10*4
10.	80*10*4 mm
11.	80*10*4 mm

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