

LNP™ LUBRICOMP™ WL002 compound

Polybutylene Terephthalate

SABIC Innovative Plastics

Message:

LNP LUBRICOMP WL002 is a compound based on PBT resin containing 10% PTFE. Added feature of this grade is: Wear Resistant.

Also known as: LNP* LUBRICOMP* Compound WL-4020

Product reorder name: WL002

General Information			
Additive	PTFE Lubricant (10%)		
Features	Good Wear Resistance		
	Lubricated		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.38	g/cm ³	ASTM D792, ISO 1183
Molding Shrinkage			ASTM D955
Flow : 24 hr	2.0 to 4.0	%	
Across Flow : 24 hr	2.0 to 4.0	%	
Water Absorption (Equilibrium, 23°C, 50% RH)	0.090	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2780	MPa	ASTM D638
--	2900	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	52.0	MPa	ASTM D638
Yield	51.0	MPa	ISO 527-2/5
Break ³	51.0	MPa	ASTM D638
Break	51.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	9.3	%	ASTM D638
Yield	9.8	%	ISO 527-2/5
Break ⁵	12	%	ASTM D638
Break	11	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	2640	MPa	ASTM D790
-- ⁷	2340	MPa	ISO 178
Flexural Stress	78.0	MPa	ISO 178
Coefficient of Friction			ASTM D3702 Modified
vs. Itself - Dynamic	0.35		

vs. Itself - Static	0.31		
Wear Factor			ASTM D3702 Modified
Ring	2.75	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	
Washer	25.0	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	39	J/m	ASTM D256
23°C ⁸	3.8	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	880	J/m	ASTM D4812
23°C ⁹	53	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	6.68	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	160	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	58.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹¹	57.0	°C	ISO 75-2/Af
CLTE			ASTM D696
Flow : -30 to 30°C	9.8E-5	cm/cm/°C	
Transverse : -30 to 30°C	9.9E-5	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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