

LNP™ LUBRICOMP™ KL003 compound

Acetal (POM) Copolymer

SABIC Innovative Plastics

Message:

LNP LUBRICOMP* KL003 is a compound based on Acetal Copolymer resin containing 15% PTFE. Added feature of this material is: Wear Resistant.

Also known as: LNP* LUBRICOMP* Compound KL-4030

Product reorder name: KL003

General Information			
Additive	PTFE Lubricant (15%)		
Features	Good Wear Resistance		
	Lubricated		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.49	g/cm ³	ASTM D792, 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	0.20	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.29	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2530	MPa	ASTM D638
--	2460	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	48.0	MPa	ASTM D638
Yield	46.0	MPa	ISO 527-2/5
Break ³	48.0	MPa	ASTM D638
Break	46.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	10	%	ASTM D638
Yield	9.0	%	ISO 527-2/5
Break ⁵	19	%	ASTM D638
Break	16	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	2210	MPa	ASTM D790
-- ⁷	2250	MPa	ISO 178
Flexural Strength	75.8	MPa	ASTM D790
Coefficient of Friction			ASTM D3702 Modified

vs. Itself - Dynamic	0.35		
vs. Itself - Static	0.17		
Wear Factor			ASTM D3702 Modified
Ring	0.300	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	
Washer	11.0	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	37	J/m	ASTM D256
23°C ⁸	3.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	710	J/m	ASTM D4812
23°C ⁹	46	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	158	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹⁰	149	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	97.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹¹	88.0	°C	ISO 75-2/Af
CLTE			ASTM D696
Flow : -30 to 30°C	1.1E-4	cm/cm/°C	
Transverse : -30 to 30°C	1.1E-4	cm/cm/°C	
Injection	Nominal Value	Unit	
Drying Temperature	82.2	°C	
Drying Time	4.0	hr	
Rear Temperature	177 to 188	°C	
Middle Temperature	193 to 204	°C	
Front Temperature	210 to 221	°C	
Processing (Melt) Temp	199 to 216	°C	
Mold Temperature	82.2 to 110	°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		

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