

LNP Lubricomp* KL-4540 D BK8-115

SABIC Innovative Plastics - Acetal (POM) Homopolymer

General Information			
General			
Additive	• PTFE + Silicone Lubricant		
Features	• Lubricated		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
ASTM and ISO Properties ¹			
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Specific Gravity (Method A)	1.49	1.49	ASTM D792
Density	1.49 g/cm³	1.49 g/cm³	ISO 1183
Molding Shrinkage (Flow, 24 hr)	0.021 in/in	2.1 %	ASTM D955
Molding Shrinkage (Across Flow, 24 hr)	0.021 in/in	2.1 %	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow, 24 hr	2.1 %	2.1 %	
Flow, 24 hr	2.1 %	2.1 %	
Water Absorption (24 hr)	0.20 %	0.20 %	ASTM D570
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	320000 psi	2210 MPa	ASTM D638
Tensile Modulus	377000 psi	2600 MPa	ISO 527-1, -2
Tensile Strength (Break)	7300 psi	50.3 MPa	ASTM D638
Tensile Stress (Break)	6530 psi	45.0 MPa	ISO 527-1, -2
Tensile Elongation (Break)	13 %	13 %	ASTM D638
Tensile Strain (Break)	11 %	11 %	ISO 527-1, -2
Flexural Modulus	350000 psi	2410 MPa	ASTM D790
Flexural Modulus	406000 psi	2800 MPa	ISO 178
Flexural Strength	11000 psi	75.8 MPa	ASTM D790
Flexural Strength	11200 psi	77.0 MPa	ISO 178
Coefficient of Friction			ASTM D1894
vs. Steel - Dynamic	0.25	0.25	
vs. Steel - Static	0.16	0.16	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (0.125 in (3.18 mm))	0.900 ft-lb/in	48.0 J/m	ASTM D256
Notched Izod Impact Strength	2.14 ft-lb/in²	4.50 kJ/m²	ISO 180
Unnotched Izod Impact (0.125 in (3.18 mm))	8.00 ft-lb/in	427 J/m	ASTM D256
Unnotched Izod Impact Strength	14.1 ft-lb/in²	29.7 kJ/m²	ISO 180
Instrumented Dart Impact	44.3 in-lb	5.00 J	ASTM D3763
Multi-Axial Instrumented Impact Energy	0.738 ft-lb	1.00 J	ISO 6603-2

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Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed	326 °F	163 °C	ASTM D648
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	211 °F	99.4 °C	ASTM D648
Heat Deflection Temperature 264 psi (1.8 MPa), Unannealed	210 °F	99.0 °C	ISO 75A-1, -2

Additional Properties

COEFFICIENT OF FRICTION vs. Steel, Dynamic @ 40 psi, 50 ft/min, SABIC WI-0687: 0.25
COEFFICIENT OF FRICTION vs. Steel, Static @ 40 psi, SABIC WI-0687: 0.16
WEAR FACTOR @ 40 psi, 50 ft/min, SABIC WI-0687: 9×10^{-10} in⁵-min/ft-lb-hr

Processing Information		
Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	180 °F	82.2 °C
Drying Time	4.0 hr	4.0 hr
Processing (Melt) Temp	390 to 415 °F	199 to 213 °C
Mold Temperature	180 to 225 °F	82.2 to 107 °C
Back Pressure	25.0 to 50.0 psi	0.172 to 0.345 MPa

Notes

¹ Typical properties: these are not to be construed as specifications.