

## SABIC Innovative Plastics LNP LUBRICOMP KP003AXZ Acetal Homopolymer

Category : Polymer , Thermoplastic , Acetal (POM) , Acetal Homopolymer, Unreinforced

### Material Notes:

LNP\* LUBRICOMP\* KP003AXZ is a compound based on Acetal Homopolymer resin containing 15% PTFE/Silicone. Added feature of this material is: Wear Resistant.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-LUBRICOMP-KP003AXZ-Acetal-Homopolymer.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-LUBRICOMP-KP003AXZ-Acetal-Homopolymer.php)

Physical Properties	Metric	English	Comments
Density	1.47 g/cc	0.0531 lb/in <sup>3</sup>	ASTM D792
	1.47 g/cc	0.0531 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.300 %	0.300 %	50% RH, 24 hrs; ASTM D570
Linear Mold Shrinkage, Flow	0.024 cm/cm	0.024 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.024 cm/cm	0.024 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.025 cm/cm	0.025 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.025 cm/cm	0.025 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	52.0 MPa	7540 psi	ASTM D638
	53.0 MPa	7690 psi	ISO 527
Tensile Strength, Yield	53.0 MPa	7690 psi	ASTM D638
	53.0 MPa	7690 psi	ISO 527
Elongation at Break	15.1 %	15.1 %	ISO 527
	28.8 %	28.8 %	ASTM D638
Elongation at Yield	15 %	15 %	ISO 527
	20.9 %	20.9 %	ASTM D638
Tensile Modulus	2.57 GPa	373 ksi	1 mm/min; ISO 527

Mechanical Properties	2.75 GPa Metric	399 ksi English	50 mm/min; ASTM D638 Comments
Flexural Strength	65.0 MPa	9430 psi	ISO 178
Flexural Modulus	2.75 GPa	399 ksi	ASTM D790
	3.00 GPa	435 ksi	ISO 178
Izod Impact, Notched	0.530 J/cm	0.993 ft-lb/in	ASTM D256
Izod Impact, Unnotched	10.14 J/cm	19.00 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	5.00 kJ/m <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	53.0 kJ/m <sup>2</sup>	25.2 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
Dart Drop, Total Energy	1.00 J	0.738 ft-lb	Instrumented Impact Energy @ peak; ASTM D3763
Impact Test	1.00 J	0.738 ft-lb	Multiaxial Impact; ISO 6603
Coefficient of Friction, Dynamic	0.21	0.21	ASTM D3702 Modified
Coefficient of Friction, Static	0.11	0.11	ASTM D3702 Modified
K (wear) Factor	22.2 x 10 <sup>-8</sup> mm <sup>3</sup> /N-M	11.0 x 10 <sup>-10</sup> in <sup>3</sup> - min/ft-lb-hr	Washer; ASTM D3702 Modified

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	95.4 Åµm/m-Å°C	53.0 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
	96.0 Åµm/m-Å°C	53.3 Åµin/in-Å°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
CTE, linear, Transverse to Flow	95.4 Åµm/m-Å°C	53.0 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
	96.0 Åµm/m-Å°C	53.3 Åµin/in-Å°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
Deflection Temperature at 0.46 MPa (66 psi)	157 Å°C	315 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	162 Å°C	324 Å°F	
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	88.0 Å°C	190 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Af

Thermal Properties	Metric	English	Comments
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D648

## Contact Songhan Plastic Technology Co.,Ltd.

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