

SABIC Innovative Plastics LNP Lubricomp KCL36 Acetal Copoly

Category : Polymer , Thermoplastic , Acetal (POM) , Acetal Copolymer, Carbon Fiber Filled

Material Notes:

LNP* Lubricomp* KCL36 is a compound based on Acetal Copolymer resin containing PTFE, Carbon Fiber. Added features of this material include: Internally Lubricated, Electrically Conductive. This data was supplied by SABIC-IP for the Americas region.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-Lubricomp-KCL36-Acetal-Copoly.php

Physical Properties	Metric	English	Comments
Density	1.58 g/cc	0.0571 lb/in ³	ASTM D 792
	1.58 g/cc	0.0571 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	0.10 %	0.10 %	50% RH; ASTM D 570
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Flow	0.0069 cm/cm	0.0069 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
	0.0060 - 0.0080 cm/cm	0.0060 - 0.0080 in/in	ASTM D 955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.010 - 0.012 cm/cm	0.010 - 0.012 in/in	ASTM D 955
	@Time 86400 sec	@Time 24.0 hour	
	0.011 cm/cm	0.011 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	117 MPa	17000 psi	ASTM D 638
	117 MPa	17000 psi	ISO 527
Tensile Strength, Yield	117 MPa	17000 psi	ASTM D 638
	117 MPa	17000 psi	ISO 527
Elongation at Break	1.4 %	1.4 %	ASTM D 638
	1.4 %	1.4 %	ISO 527
Elongation at Yield	1.4 %	1.4 %	ASTM D 638
	1.4 %	1.4 %	ISO 527
Tensile Modulus	17.32 GPa	2512 ksi	1 mm/min; ISO 527

Mechanical Properties	Metric 20.68 GPa	English 2999 ksi	Comments 50 mm/min; ASTM D 638
Flexural Strength	179 MPa	26000 psi	ASTM D 790
	179 MPa	26000 psi	ISO 178
Flexural Modulus	16.54 GPa	2399 ksi	ASTM D 790
	17.3 GPa	2510 ksi	ISO 178
Izod Impact, Notched	0.480 J/cm @Temperature 23.0 Â°C	0.899 ft-lb/in @Temperature 73.4 Â°F	ASTM D 256
Izod Impact, Unnotched	4.80 J/cm @Temperature 23.0 Â°C	8.99 ft-lb/in @Temperature 73.4 Â°F	ASTM D 4812
Izod Impact, Notched (ISO)	4.00 kJ/mÂ² @Temperature 23.0 Â°C	1.90 ft-lb/inÂ² @Temperature 73.4 Â°F	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	27.0 kJ/mÂ² @Temperature 23.0 Â°C	12.8 ft-lb/inÂ² @Temperature 73.4 Â°F	80*10*4; ISO 180/1U
Impact Test	2.00 J	1.48 ft-lb	Multiaxial Impact; ISO 6603
	9.00 J @Temperature 23.0 Â°C	6.64 ft-lb @Temperature 73.4 Â°F	Instrumented Impact Energy @ peak; ASTM D 3763
Coefficient of Friction, Dynamic	0.38	0.38	ASTM D 3702 Modified
Coefficient of Friction, Static	0.31	0.31	ASTM D 3702 Modified
K (wear) Factor	127 x 10 ⁻⁸ mmÂ³/N-M	63.0 x 10 ⁻¹⁰ inÂ³- min/ft-lb-hr	Washer; ASTM D 3702 Modified

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	43.0 Âµm/m-Â°C	23.9 Âµin/in-Â°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	43.2 Âµm/m-Â°C	24.0 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	27.0 Âµm/m-Â°C	15.0 Âµin/in-Â°F	

CTE linear, Transverse to Flow Thermal Properties	Metric @Temperature -40.0 - 40.0 Â°C	English @Temperature -40.0 - 104 Â°F	ASTM E 831 Comments
	27.0 Âµm/m-Â°C	15.0 Âµin/in-Â°F	
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	ISO 11359-2
Deflection Temperature at 0.46 MPa (66 psi)	163 Â°C	325 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	162 Â°C	324 Â°F	
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D 648
Deflection Temperature at 1.8 MPa (264 psi)	159 Â°C	318 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	160 Â°C	320 Â°F	
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D 648

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