

LNPT[™] LUBRICOMP[™] COMPOUND KI001XXJ

KL-4410 HC

DESCRIPTION

LNP LUBRICOMP KI001XXJ compound is based on POM (Acetal) resin containing silicone. Added features of this grade include: Wear Resistant, Healthcare, Food Contact compliant.

GENERAL INFORMATION	
Features	Wear resistant, Food contact, Healthcare/Formula lock, No PFAS intentionally added
Fillers	Unreinforced, Silicone
Polymer Types	Acetal (POM) Copolymer
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Water Management
Consumer	Home Appliances
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Packaging	Industrial Packaging, Food & Beverage

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 5 mm/min	55	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	52	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	16	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	46	%	ASTM D638
Tensile Modulus, 50 mm/min	2750	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	74	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2280	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	1550	J/m	ASTM D4812
Izod Impact, notched, 23°C	81	J/m	ASTM D256
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	106	°C	ASTM D648
PHYSICAL ⁽¹⁾			
Moisture Absorption, (23°C/50% RH/24 hrs)	0.24	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	2.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	2.4	%	ASTM D955
Wear Factor Washer	22	10 ⁻⁴ -10 ⁻⁵ in ³ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.44	-	ASTM D3702 Modified: Manual
Static COF	0.34	-	ASTM D3702 Modified: Manual
Density	1.4	g/cm ³	ISO 1183

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
INJECTION MOLDING ⁽³⁾			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Melt Temperature	200 – 215	°C	
Front - Zone 3 Temperature	210 – 220	°C	
Middle - Zone 2 Temperature	195 – 205	°C	
Rear - Zone 1 Temperature	175 – 190	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

- (1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
- (3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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