

LNPT[™] LUBRICOMP[™] COMPOUND KP002

KL-4520

REGION ASIA

DESCRIPTION

LNP LUBRICOMP KP002 compound is based on Acetal (POM) Copolymer resin containing 10% PTFE/silicone. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION

Features	Wear resistant
Fillers	Unreinforced, PTFE/Silicone
Polymer Types	Acetal (POM) Copolymer
Processing Techniques	Injection Molding

INDUSTRY

Building and Construction
Consumer
Electrical and Electronics
Industrial

SUB INDUSTRY

Building Component
Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Mobile Phone - Computer - Tablets
Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 5 mm/min	49	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	48	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	18.3	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	28.6	%	ASTM D638
Tensile Modulus, 50 mm/min	2750	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	1910	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	49	MPa	ISO 527
Tensile Stress, break, 5 mm/min	48	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	17.9	%	ISO 527
Tensile Strain, break, 5 mm/min	28.4	%	ISO 527
Tensile Modulus, 1 mm/min	2330	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	69	MPa	ISO 178
Flexural Strain, break, 2 mm/min	7	%	ISO 178
Flexural Modulus, 2 mm/min	1990	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	1068	J/m	ASTM D4812
Izod Impact, notched, 23°C	53	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	5	J	ASTM D3763
Multiaxial Impact	1	J	ISO 6603

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CHEMISTRY THAT MATTERS[™]

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, unnotched 80*10*4 +23°C	74	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	156	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	92	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.06E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.03E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	1.06E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.03E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	146	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	87	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Density	1.43	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.2	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	2.2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	2.2	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽²⁾	2.2	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	2.2	%	ISO 294
Wear Factor Washer	8	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.31	-	ASTM D3702 Modified: Manual
Static COF	0.18	-	ASTM D3702 Modified: Manual
Density	1.43	g/cm ³	ISO 1183
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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