LNP™ LUBRICOMP™ COMPOUND KP002

KL-4520
REGION ASIA

DESCRIPTION

LNP LUBRICOMP KP002 is a compound based on Acetal Copolymer resin containing 10% PTFE/Silicone. Added feature of this material is: Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20181219

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	49	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	48	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	18.3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	28.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	2750	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	1910	MPa	ASTM D 790
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			
Izod Impact, unnotched, 23°C	1068	J/m	ASTM D 4812
Izod Impact, notched, 23°C	53	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	5	J	ASTM D 3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	74	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	156	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	92	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.06E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.03E-04	1/°C	ASTM E 831
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			
Density	1.43	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.2	%	ASTM D 570

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, flow, 24 hrs	2.2	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	2.2	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	2.2	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	2.2	%	ISO 294
Wear Factor Washer	8	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.31	-	ASTM D 3702 Modified: Manual
Static COF	0.18	-	ASTM D 3702 Modified: Manual
Density	1.43	g/cm³	ISO 1183
INJECTION MOLDING			
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	

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