LNP™ LUBRICOMP™ COMPOUND KP004XXP

KL-4540

DESCRIPTION

LNP LUBRICOMP* KP004XXP is a compound based on Acetal Copolymer resin containing 20% PTFE/Silicone. Added feature of this material is: Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20191219

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	43	MPa	ASTM D 638
Tensile Stress, break	43	MPa	ASTM D 638
Tensile Strain, yield	13.7	%	ASTM D 638
Tensile Strain, break	30.3	%	ASTM D 638
Tensile Modulus, 50 mm/min	1830	MPa	ASTM D 638
Flexural Stress	63	MPa	ASTM D 790
Flexural Modulus	2020	MPa	ASTM D 790
Tensile Stress, yield	39	MPa	ISO 527
Tensile Stress, break	39	MPa	ISO 527
Tensile Strain, yield	21.5	%	ISO 527
Tensile Strain, break	42.8	%	ISO 527
Tensile Modulus, 1 mm/min	2020	MPa	ISO 527
Flexural Stress	60	MPa	ISO 178
Flexural Modulus	2080	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	619	J/m	ASTM D 4812
Izod Impact, notched, 23°C	53	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	3	J	ASTM D 3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	42	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	87	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.11E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.14E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.11E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.14E-04	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	79	°C	ISO 75/Af
PHYSICAL			
Density	1.48	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.18	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	2.1 – 2.9	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	2.1 – 2.9	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	2.09 – 2.92	%	ISO 294

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs	2.09 – 2.92	%	ISO 294
Wear Factor Washer	9	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.25	-	ASTM D 3702 Modified: Manual
Static COF	0.14	-	ASTM D 3702 Modified: Manual
Density	1.48	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.43	%	ISO 62
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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