



LNP™ LUBRICOMP™ Compound KP004XXP

Americas: COMMERCIAL

Also known as: LNP™ LUBRICOMP™ Compound KL-4540

Product reorder name: KP004XXP

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

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	440	kgf/cm ²	ASTM D 638
Tensile Stress, break	440	kgf/cm ²	ASTM D 638
Tensile Strain, yield	13.7	%	ASTM D 638
Tensile Strain, break	30.3	%	ASTM D 638
Tensile Modulus, 50 mm/min	18700	kgf/cm ²	ASTM D 638
Flexural Stress	640	kgf/cm ²	ASTM D 790
Flexural Modulus	20600	kgf/cm ²	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	63	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	39	cm-kgf	ASTM D 3763
Multiaxial Impact	10	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	42	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	87	°C	ASTM D 648



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THERMAL			
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/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.18	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	2.1 - 2.9	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	2.1 - 2.9	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	2.09 - 2.92	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	2.09 - 2.92	%	ISO 294
Wear Factor Washer	9	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.25	-	ASTM D 3702 Modified
Static COF	0.14	-	ASTM D 3702 Modified
Density	1.48	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.43	%	ISO 62



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
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