



LNP™ LUBRICOMP™ Compound KP004L

Americas: COMMERCIAL

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

Product reorder name: KP004L

LNP LUBRICOMP KP004L is a compound based on Acetal Copolymer resin containing 20% PTFE/Silicone. Added features of this material include: Wear Resistant, Low Extractible.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	480	kgf/cm ²	ASTM D 638
Tensile Stress, break	470	kgf/cm ²	ASTM D 638
Tensile Strain, yield	20.2	%	ASTM D 638
Tensile Strain, break	39.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	21000	kgf/cm ²	ASTM D 638
Flexural Modulus	21000	kgf/cm ²	ASTM D 790
Tensile Stress, yield	47	MPa	ISO 527
Tensile Stress, break	46	MPa	ISO 527
Tensile Strain, yield	19.2	%	ISO 527
Tensile Strain, break	34.3	%	ISO 527
Tensile Modulus, 1 mm/min	2270	MPa	ISO 527
Flexural Stress	119	MPa	ISO 178
Flexural Modulus	5400	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	72	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	50	cm-kgf	ASTM D 3763
Multiaxial Impact	15	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	46	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	151	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	81	°C	ASTM D 648



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THERMAL			
CTE, -40°C to 40°C, flow	1.17E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.17E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.18E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.17E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	145	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	88	°C	ISO 75/Af
PHYSICAL			
Density	1.48	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.2	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	2.8 - 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	2.3 - 2.5	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	2.9	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	2.4	%	ISO 294
Wear Factor Washer	9	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.27	-	ASTM D 3702 Modified
Static COF	0.15	-	ASTM D 3702 Modified
Density	1.48	g/cm ³	ISO 1183



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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