

## LNP\* Lubricomp\* Compound KL004L

Asia Pacific: COMMERCIAL

Also known as: 404 LE

Product Reorder Name: KL004L

LNP\* Lubricomp\* KL004L is a compound based on Acetal Copolymer resin containing PTFE. Added features of this material include: Internally Lubricated, Low Extractible.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yield	47	MPa	ASTM D 638
Tensile Stress, break	46	MPa	ASTM D 638
Tensile Stress, yld, Type I, 5 mm/min	47	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	47	MPa	ASTM D 638
Tensile Strain, yield	11.3	%	ASTM D 638
Tensile Strain, break	22.3	%	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	11.4	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	22.3	%	ASTM D 638
Tensile Modulus, 50 mm/min	2750	MPa	ASTM D 638
Flexural Modulus	2060	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2070	MPa	ASTM D 790
Tensile Stress, yield	48	MPa	ISO 527
Tensile Stress, break	47	MPa	ISO 527
Tensile Stress, yield, 5 mm/min	48	MPa	ISO 527
Tensile Stress, break, 5 mm/min	47	MPa	ISO 527
Tensile Strain, yield	10.8	%	ISO 527
Tensile Strain, break	20.3	%	ISO 527
Tensile Strain, yield, 5 mm/min	10.8	%	ISO 527
Tensile Strain, break, 5 mm/min	20.4	%	ISO 527
Tensile Modulus, 1 mm/min	2340	MPa	ISO 527
Flexural Stress	59	MPa	ISO 178
Flexural Stress, yield, 2 mm/min	59	MPa	ISO 178
Flexural Modulus	2100	MPa	ISO 178
Flexural Modulus, 2 mm/min	2100	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	672	J/m	ASTM D 4812
Izod Impact, notched, 23°C	42	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	4	J	ASTM D 3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	38	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m <sup>2</sup>	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	153	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	84	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.17E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.15E-04	1/°C	ASTM E 831

CTE, -40°C to 40°C, flow	1.17E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.15E-04	1/°C	ISO 11359-2
CTE, 23°C to 60°C, flow	1.17E-04	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.15E-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	83	°C	ISO 75/Af
<b>PHYSICAL</b>	<b>Value</b>	<b>Unit</b>	<b>Standard</b>
Density	1.52	g/cm <sup>3</sup>	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.1	%	ASTM D 570
Mold Shrinkage, flow	3.4	%	SABIC Method
Mold Shrinkage, xflow	2.5	%	SABIC Method
Mold Shrinkage, flow, 24 hrs	2.5 - 4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	2 - 3	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	3.4	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	2.5	%	ISO 294
Wear Factor Washer	10	10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.24	-	ASTM D 3702 Modified
Static COF	0.13	-	ASTM D 3702 Modified
Density	1.51	g/cm <sup>3</sup>	ISO 1183

Source GMD, last updated:09/24/2008

## Processing

Parameter	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

Source GMD, last updated:09/24/2008

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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