



LNP™ LUBRICOMP™ Compound KL003LH

Americas: COMMERCIAL

Also known as: LNP™ LUBRICOMP™ Compound KL-4030 LE

Product reorder name: KL003LH

LNP LUBRICOMP KL003LH is an Acetal based compound containing 15% PTFE. Added features of this grade include: Low Extractable, Healthcare, Wear Resistant.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	530	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	470	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	12	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	27	%	ASTM D 638
Tensile Modulus, 50 mm/min	26300	kgf/cm ²	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	22500	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	50	MPa	ISO 527
Tensile Stress, break, 5 mm/min	49	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	13	%	ISO 527
Tensile Strain, break, 5 mm/min	32	%	ISO 527
Tensile Modulus, 1 mm/min	2520	MPa	ISO 527
Flexural Stress	64	MPa	ISO 178
Flexural Modulus, 2 mm/min	2210	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	88	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	4	cm-kgf/cm	ASTM D 256
Multiaxial Impact	11	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	49	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	59	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	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	87	°C	ASTM D 648

(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.

(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(6) Needs hard coat to consistently pass 60 sec Vertical Burn.



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
CTE, -30°C to 30°C, flow	1.32E+02	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.24E+02	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	148	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	85	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.49	-	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.19	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	2 - 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	2 - 3	%	ASTM D 955
Wear Factor Washer	14	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified: Manual
Wear Factor Ring	0	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.27	-	ASTM D 3702 Modified: Manual
Static COF	0.13	-	ASTM D 3702 Modified: Manual
Density	1.48	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.3	%	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

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Source GMD, last updated: