



LNP™ LUBRICOMP™ Compound KAL22M

Americas: COMMERCIAL

Also known as: LNP™ LUBRICOMP™ Compound KAL-4022 M

Product reorder name: KAL22M

LNP LUBRICOMP* KAL22M is a compound based on Acetal Copolymer resin containing 10% PTFE, 10% Aramid. Added features of this material include: Wear Resistant.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	410	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	8.5	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	14	%	ASTM D 638
Tensile Modulus, 5 mm/min	29200	kgf/cm ²	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	24700	kgf/cm ²	ASTM D 790
Tensile Stress, break, 5 mm/min	39	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	8.8	%	ISO 527
Tensile Strain, break, 5 mm/min	14	%	ISO 527
Tensile Modulus, 1 mm/min	2590	MPa	ISO 527
Flexural Stress	62	MPa	ISO 178
Flexural Modulus, 2 mm/min	2420	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	37	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	3	cm-kgf/cm	ASTM D 256
Multiaxial Impact	10	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	50	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80°10*4 +23°C	26	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	155	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	94	°C	ASTM D 648
CTE, -30°C to 30°C, flow	9.9E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.04E-04	1/°C	ASTM D 696

(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.

Source GMD, last updated:

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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	147	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	84	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.4	-	ASTM D 792
Density	1.45	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.21	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	2 - 4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	2 - 4	%	ASTM D 955
Wear Factor Washer	8	10 ⁻⁴ in ³ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.23	-	ASTM D 3702 Modified
Static COF	0.16	-	ASTM D 3702 Modified
Moisture Absorption (23°C / 50% RH)	0.35	%	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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