LNP™ LUBRICOMP™ COMPOUND KA000M

LUBRICOMP-KA

DESCRIPTION

LNP LUBRICOMP KA000M compound is based on POM (Acetal) resin containing aramid powder and proprietary lubricant. Added features of this grade include: Internally Lubricated, Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, No PFAS intentionally added
Fillers	Aramid Powder
Polymer Types	Acetal (POM) Copolymer
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Modulus, 5 mm/min	2600	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	5.3	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	6	%	ASTM D638
Tensile Stress, yld, Type I, 5 mm/min	42	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2600	MPa	ASTM D790
Flexural Strength, 1.3 mm/min, 50 mm span	74	MPa	ASTM D790
Flexural Modulus, 2 mm/min	2400	MPa	ISO 178
Flexural Modulus, 2 mm/min, 60°C	1400	MPa	ISO 178
Flexural Modulus, 2 mm/min, 100°C	800	MPa	ISO 178
Flexural Strain, break, 2 mm/min	7	%	ISO 178
Flexural Strain, break, 2 mm/min, 60°C	7	%	ISO 178
Flexural Strain, break, 2 mm/min, 100°C	7	%	ISO 178
Flexural Stress, yield, 2 mm/min	70	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 60°C	42	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 100°C	22	MPa	ISO 178
Tensile Modulus, 1 mm/min	2600	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	6	%	ISO 527
Tensile Strain, break, 5 mm/min	7.8	%	ISO 527
Tensile Stress, yield, 5 mm/min	42	MPa	ISO 527
IMPACT [1]			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched, 23°C	28	J/m	ASTM D256
Izod Impact, unnotched, 23°C	310	J/m	ASTM D4812
Izod Impact, notched 80*10*4 +23°C	3	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	25	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	2	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	30	kJ/m²	ISO 179/1eU
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	96	°C	ASTM D648
Vicat Softening Temp, Rate B/50	143	°C	ASTM D1525
CTE, 23°C to 60°C, flow	1.2E-04	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.3E-04	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	90	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	150	°C	ISO 75/Bf
Vicat Softening Temp, Rate B/120	144	°C	ISO 306
Vicat Softening Temp, Rate B/50	143	°C	ISO 306
PHYSICAL [1]			
Moisture Absorption, (23°C/50% RH/24 hrs)	0.2 – 0.3	%	ASTM D570
Water Absorption, (23°C/24hrs)	0.2 – 0.4	%	ASTM D570
Dynamic COF	0.2	-	ASTM D3702 Modified: Manual
Static COF	0.22	-	ASTM D3702 Modified: Manual
Wear Factor Washer	9	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.2 – 0.3	%	ISO 62
Water Absorption, (23°C/24hrs)	0.2 – 0.4	%	ISO 62-1
Melt Volume Rate, MVR at 190°C/2.16 kg	4 – 6	cm³/10 min	ISO 1133
Density	1.35	g/cm³	ISO 1183
Mold Shrinkage, flow [2]	1.5 – 2.5	%	SABIC method
Mold Shrinkage, xflow [2]	1.5 – 2.5	%	SABIC method
FLAME CHARACTERISTICS [3]			
UL Yellow Card Link	E45329-101343833	-	-
UL Recognized, 94HB Flame Class Rating	≥1.5	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Melt Temperature	200 – 215	°C	
Rear - Zone 1 Temperature	175 – 190	°C	
Middle - Zone 2 Temperature	195 – 205	°C	
Front - Zone 3 Temperature	210 – 220	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) 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.

(3) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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