LNP™ LUBRICOMP™ COMPOUND KL004

FULTON 404 & KL-4040
REGION ASIA

DESCRIPTION

LNP LUBRICOMP KL004 compound is based on Acetal (POM) Copolymer resin containing 20% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant
Fillers	Unreinforced, PTFE
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 20241017

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	51	MPa	ASTM D638
Tensile Stress, break	50	MPa	ASTM D638
Tensile Strain, yield	11	%	ASTM D638
Tensile Strain, break	18	%	ASTM D638
Tensile Modulus, 50 mm/min	2130	MPa	ASTM D638
Flexural Stress	75	MPa	ASTM D790
Flexural Modulus	2060	MPa	ASTM D790
Tensile Stress, yield	47	MPa	ISO 527
Tensile Stress, break	46	MPa	ISO 527
Tensile Strain, yield	10	%	ISO 527
Tensile Strain, break	23	%	ISO 527
Tensile Modulus, 1 mm/min	2400	MPa	ISO 527
Flexural Stress	79	MPa	ISO 178
Flexural Modulus	2600	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	640	J/m	ASTM D4812
Izod Impact, notched, 23°C	42	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	6	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	45	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	157	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	99	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.1E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.11E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	1.1E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.11E-04	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	98	°C	ISO 75/Af
PHYSICAL [1]			
Density	1.5	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.15	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	1.97 – 2.5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	1.97 – 2.5	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [2]	1.97 – 2.5	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	1.97 – 2.5	%	ISO 294
Wear Factor Washer	15	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.29	-	ASTM D3702 Modified: Manual
Static COF	0.15	-	ASTM D3702 Modified: Manual
Density	1.5	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.26	%	ISO 62
FLAME CHARACTERISTICS [3]			
UL Yellow Card Link	E207780-101281607	-	-
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	
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	

(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.

DISCLAIMER

CHEMISTRY THAT MATTERS™