LNP™ LUBRICOMP™ COMPOUND KL004L

FULTON 404 LE

DESCRIPTION

LNP LUBRICOMP KL004L compound is based on Acetal (POM) Copolymer resin containing 20% PTFE. Added features of this grade include: Wear Resistant, Low Extractable.

GENERAL INFORMATION	
Features	Wear resistant, Food contact
Fillers	Unreinforced, PTFE
Polymer Types	Acetal (POM) Copolymer
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Water Management
Consumer	Home Appliances
Packaging	Industrial Packaging, Food & Beverage

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield, 5 mm/min	48	MPa	ISO 527
Tensile Stress, break, 5 mm/min	47	MPa	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, yield, 2 mm/min	59	MPa	ISO 178
Flexural Modulus, 2 mm/min	2100	MPa	ISO 178
Tensile Stress, yld, Type I, 5 mm/min	47	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	47	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	11.4	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	22.3	%	ASTM D638
Tensile Modulus, 5 mm/min	2750	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2070	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	38	kJ/m²	ISO 180/1U
Multiaxial Impact	1	J	ISO 6603
Izod Impact, notched, 23°C	42	J/m	ASTM D256
Izod Impact, unnotched, 23°C	672	J/m	ASTM D4812
Instrumented Dart Impact Energy @ peak, 23°C	4	J	ASTM D3763
THERMAL [1]			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	83	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	146	°C	ISO 75/Bf
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, 0.45 MPa, 3.2 mm, unannealed	153	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	84	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.17E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.15E-04	1/°C	ASTM E831
PHYSICAL [1]			
Density	1.51	g/cm³	ISO 1183
Density	1.52	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.1	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	1.5 – 2.5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	2.0 – 3.0	%	ASTM D955
Wear Factor Washer	10	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.24	-	ASTM D3702 Modified: Manual
Static COF	0.13	-	ASTM D3702 Modified: Manual
INJECTION MOLDING [3]			
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) 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