LNP™ LUBRICOMP™ COMPOUND KL003LH

KL-4030 LE

DESCRIPTION

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

TYPICAL PROPERTY VALUES

Revision 20191210

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	52	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	47	MPa	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	2580	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	2210	MPa	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	871	J/m	ASTM D 4812
Izod Impact, notched, 23°C	41	J/m	ASTM D 256
Multiaxial Impact	1	J	ISO 6603
Instrumented Impact Total Energy, 23°C	4	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	59	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	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
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	2 – 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	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

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Dynamic COF	0.27	-	ASTM D 3702 Modified: Manual
Static COF	0.13	-	ASTM D 3702 Modified: Manual
Density	1.48	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.3	%	ISO 62
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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