LNP™ LUBRICOMP™ COMPOUND ML004

ML-4040

DESCRIPTION

LNP* LUBRICOMP* ML004 is a product based on Polypropylene containing 20% PTFE. Added features of this grade include: Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20191210

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	33	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	29	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	5.5	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	10.4	%	ASTM D 638
Tensile Modulus, 50 mm/min	1950	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	1590	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	31	MPa	ISO 527
Tensile Stress, break, 5 mm/min	28	MPa	ISO 527
Tensile Modulus, 1 mm/min	1620	MPa	ISO 527
Flexural Stress	40	MPa	ISO 178
Flexural Modulus, 2 mm/min	1590	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	416	J/m	ASTM D 4812
Izod Impact, notched, 23°C	27	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	3	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	26	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	2	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	115	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	57	°C	ASTM D 648
CTE, -30°C to 30°C, flow	1.34E+02	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.26E+02	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	102	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	56	°C	ISO 75/Af
PHYSICAL			
Density	1.01	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.02	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	1 – 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1 – 3	%	ASTM D 955
Wear Factor Washer	109	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Wear Factor Ring	13	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.89	-	ASTM D 3702 Modified: Manual
Static COF	0.7	-	ASTM D 3702 Modified: Manual
Density	1.02	g/cm³	ISO 1183

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Moisture Absorption (23°C / 50% RH)	0.01	%	ISO 62
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Melt Temperature	225 – 250	°C	
Front - Zone 3 Temperature	240 – 250	°C	
Middle - Zone 2 Temperature	215 – 225	°C	
Rear - Zone 1 Temperature	195 – 205	°C	
Mold Temperature	30 – 50	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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