LNP™ LUBRICOMP™ COMPOUND LL002

LL-4020

DESCRIPTION

LNP LUBRICOMP LL002 is a compound based on Polyetheretherketone containing 10% PTFE. Added feature of this material is: Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20191218

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	77	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	79	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	5.3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	52	%	ASTM D 638
Tensile Modulus, 50 mm/min	3330	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	3070	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	76	MPa	ISO 527
Tensile Stress, break, 5 mm/min	73	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	5	%	ISO 527
Tensile Strain, break, 5 mm/min	17.8	%	ISO 527
Tensile Modulus, 1 mm/min	3280	MPa	ISO 527
Flexural Stress	103	MPa	ISO 178
Flexural Modulus, 2 mm/min	3120	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	2990	J/m	ASTM D 4812
Izod Impact, notched, 23°C	84	J/m	ASTM D 256
Multiaxial Impact	1	J	ISO 6603
Instrumented Impact Total Energy, 23°C	5	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	158	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	166	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	149	°C	ASTM D 648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	155	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	149	°C	ISO 75/Af
PHYSICAL			
Density	1.37	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.08	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.3 – 0.5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.7 – 0.9	%	ASTM D 955
Wear Factor Washer	21	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Wear Factor Ring	-1	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.39	-	ASTM D 3702 Modified: Manual
Static COF	0.35	-	ASTM D 3702 Modified: Manual

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	1.37	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.1	%	ISO 62
INJECTION MOLDING			
Drying Temperature	150	°C	
Drying Time	4 – 6	hrs	
Front - Zone 3 Temperature	380 – 400	°C	
Middle - Zone 2 Temperature	380 – 400	°C	
Rear - Zone 1 Temperature	370 – 380	°C	
Mold Temperature	175 – 190	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	60 – 100	rpm	

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