LNP™ LUBRICOMP™ COMPOUND EL002

EL-4020

DESCRIPTION

LNP* LUBRICOMP* EL002 is a compound based on Polyetherimide resin 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	86	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	76	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	6.4	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	13.8	%	ASTM D 638
Tensile Modulus, 50 mm/min	3440	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	144	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	3040	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	82	MPa	ISO 527
Tensile Stress, break, 5 mm/min	78	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	6.2	%	ISO 527
Tensile Strain, break, 5 mm/min	10.2	%	ISO 527
Tensile Modulus, 1 mm/min	2750	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	108	MPa	ISO 178
Flexural Modulus, 2 mm/min	2810	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	584	J/m	ASTM D 4812
Izod Impact, notched, 23°C	53	J/m	ASTM D 256
Multiaxial Impact	1	J	ISO 6603
Instrumented Impact Total Energy, 23°C	6	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	38	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	203	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	193	°C	ASTM D 648
CTE, -30°C to 30°C, flow	4.8E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	4.7E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	201	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	186	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.32	-	ASTM D 792
Density	1.31	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.2	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.7 – 0.9	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.8 – 1	%	ASTM D 955

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Wear Factor Washer	185	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.32	-	ASTM D 3702 Modified: Manual
Static COF	0.29	-	ASTM D 3702 Modified: Manual
Density	-0	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.3	%	ISO 62
INJECTION MOLDING			
Drying Temperature	120 – 150	°C	
Drying Time	4 – 6	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	360 – 365	°C	
Front - Zone 3 Temperature	365 – 375	°C	
Middle - Zone 2 Temperature	355 – 365	°C	
Rear - Zone 1 Temperature	345 – 355	°C	
Mold Temperature	120 – 150	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	60 – 100	rpm	

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