LNP™ LUBRILOY™ COMPOUND U2000A

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REGION ASIA

DESCRIPTION

LNP LUBRILOY U2000A is a compound based on Polyphthalamide resin containing Proprietary Lubricant. Added feature of this material is: Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20181230

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	81	MPa	ASTM D 638
Tensile Stress, break	81	MPa	ASTM D 638
Tensile Strain, yield	3.6	%	ASTM D 638
Tensile Strain, break	3.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	3440	MPa	ASTM D 638
Flexural Modulus	2750	MPa	ASTM D 790
Tensile Stress, yield	78	MPa	ISO 527
Tensile Stress, break	78	MPa	ISO 527
Tensile Strain, yield	3.4	%	ISO 527
Tensile Strain, break	3.4	%	ISO 527
Tensile Modulus, 1 mm/min	3530	MPa	ISO 527
Flexural Stress	109	MPa	ISO 178
Flexural Modulus	2900	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	1345	J/m	ASTM D 4812
Izod Impact, notched, 23°C	58	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	4	J	ASTM D 3763
Multiaxial Impact	16	J	ISO 6603
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	163	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	106	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.02E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.02E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.1E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.1E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	183	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	103	°C	ISO 75/Af
PHYSICAL			
Density	1.14	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.3	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	1.6 – 1.8	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1.6 – 1.8	%	ASTM D 955

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, flow, 24 hrs	1.7	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	1.7	%	ISO 294
Wear Factor Washer	20	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.22	-	ASTM D 3702 Modified: Manual
Static COF	0.22	-	ASTM D 3702 Modified: Manual
Density	1.14	g/cm³	ISO 1183
INJECTION MOLDING			
Drying Temperature	120 – 150	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.15	%	
Melt Temperature	310 – 315	°C	
Front - Zone 3 Temperature	305 – 315	°C	
Middle - Zone 2 Temperature	305 – 315	°C	
Rear - Zone 1 Temperature	305 – 315	°C	
Mold Temperature	120 – 150	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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