LNP™ LUBRILOY™ COMPOUND D2000

REGION ASIA

DESCRIPTION

LNP LUBRILOY* D2000 is a compound based on Polycarbonate resin containing a Proprietary Non-Halogenated Lubrication System. Added feature of this material is: Wear Resistant.

INDUSTRY	SUB INDUSTRY
Automotive	Aerospace, Automotive Exteriors
Consumer	Home Appliance, Commercial Appliance
Electrical and Electronics	Electrical Devices and Displays, Electrical Components and Infrastructure
Healthcare	Pharmaceutical, Surgical, Respiratory and Sleep Therapy, Patient Testing
Industrial	Electronic Material Handling

TYPICAL PROPERTY VALUES

Revision 20190607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	53	MPa	ASTM D 638
Tensile Stress, break	60	MPa	ASTM D 638
Tensile Strain, yield	6.5	%	ASTM D 638
Tensile Strain, break	125.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	1860	MPa	ASTM D 638
Flexural Stress	82	MPa	ASTM D 790
Flexural Modulus	2130	MPa	ASTM D 790
Tensile Stress, yield	51	MPa	ISO 527
Tensile Stress, break	54	MPa	ISO 527
Tensile Strain, yield	5.6	%	ISO 527
Tensile Strain, break	98.6	%	ISO 527
Tensile Modulus, 1 mm/min	2120	MPa	ISO 527
Flexural Stress	78	MPa	ISO 178
Flexural Modulus	2130	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D 4812
Izod Impact, notched, 23°C	704	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	40	J	ASTM D 3763
Multiaxial Impact	45	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	137	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	58	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	142	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	130	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.41E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.38E-05	1/°C	ASTM E 831

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	7.42E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.38E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	140	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	128	°C	ISO 75/Af
Relative Temp Index, Elec (1)	80	°C	UL 746B
Relative Temp Index, Mech w/impact (1)	80	°C	UL 746B
Relative Temp Index, Mech w/o impact (1)	80	°C	UL 746B
PHYSICAL			
Density	1.17	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.14	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.7 – 0.9	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.7 – 0.9	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.7 – 0.9	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.7 – 0.9	%	ISO 294
Wear Factor Washer	60	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.16	-	ASTM D 3702 Modified: Manual
Static COF	0.09	-	ASTM D 3702 Modified: Manual
Density	1.17	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.18	%	ISO 62
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E207780-101283838	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	100	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 315	°C	
Front - Zone 3 Temperature	305 – 315	°C	
Middle - Zone 2 Temperature	300 – 310	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	65 – 95	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

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