

LNPT[™] LUBRILOY[™] COMPOUND D2000

REGION ASIA

DESCRIPTION

LNP LUBRILOY D2000 compound is based on Polycarbonate (PC) resin containing a proprietary non-halogenated lubrication system. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION

Features	Wear resistant, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY

Building and Construction
Consumer
Electrical and Electronics
Industrial

SUB INDUSTRY

Building Component
Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Mobile Phone - Computer - Tablets
Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yield	53	MPa	ASTM D638
Tensile Stress, break	60	MPa	ASTM D638
Tensile Strain, yield	6.5	%	ASTM D638
Tensile Strain, break	125.6	%	ASTM D638
Tensile Modulus, 50 mm/min	1860	MPa	ASTM D638
Flexural Stress	82	MPa	ASTM D790
Flexural Modulus	2130	MPa	ASTM D790
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 ⁽¹⁾			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, notched, 23°C	704	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	40	J	ASTM D3763
Multiaxial Impact	45	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	137	kJ/m ²	ISO 180/1U

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched 80°10°4 +23°C	58	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	142	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	130	°C	ASTM D648
CTE, -40°C to 40°C, flow	7.41E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.38E-05	1/°C	ASTM E831
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 ⁽²⁾	80	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	80	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	80	°C	UL 746B
PHYSICAL ⁽¹⁾			
Density	1.17	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.14	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.7 – 0.9	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.7 – 0.9	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.7 – 0.9	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.7 – 0.9	%	ISO 294
Wear Factor Washer	50	10 ⁻⁴ in ³ /min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.32	-	ASTM D3702 Modified: Manual
Static COF	0.22	-	ASTM D3702 Modified: Manual
Density	1.17	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.18	%	ISO 62
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	E207780-101283838	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	100	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	290 – 315	°C	
Front - Zone 3 Temperature	280 – 310	°C	
Middle - Zone 2 Temperature	280 – 300	°C	
Rear - Zone 1 Temperature	275 – 300	°C	
Mold Temperature	65 – 95	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) 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.

(3) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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