LNP™ LUBRILOY™ Compound U2000A

Americas: COMMERCIAL

Also known as: LNP™ LUBRILOY™ Compound U

Product reorder name: U2000A

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

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Modulus, 50 mm/min	35100	kgf/cm²	ASTM D 638
Flexural Modulus	28100	kgf/cm²	ASTM D 790
Tensile Modulus, 1 mm/min	3530	MPa	ISO 527
IMPACT			
Izod Impact, unnotched, 23°C	137	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	48	cm-kgf	ASTM D 3763
Multiaxial Impact	166	cm-kgf	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 (5)	1.6 - 1.8	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1.6 - 1.8	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	1.7	%	ISO 294

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.
(5) 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.
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
PHYSICAL			
Mold Shrinkage, xflow, 24 hrs (5)	1.7	%	ISO 294
Wear Factor Washer	20	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified
Wear Factor Ring	7	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.22	-	ASTM D 3702 Modified
Static COF	0.22	-	ASTM D 3702 Modified
Density	1.14	g/cm³	ISO 1183

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
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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