

## LNP\* Lubriloy\* Compound D2000H

### Americas: COMMERCIAL

Also known as: LNP\* Lubriloy\* Compound D-HC

Product reorder name: D2000H

LNP LUBRILOY\* D2000H is a compound based on Polycarbonate resin containing Proprietary Lubricant. Added features of this material include: Internally Lubricated, Healthcare.

TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>MECHANICAL</b>			
Tensile Stress, yield	540	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Stress, break	610	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Strain, yield	6.5	%	ASTM D 638
Tensile Strain, break	125.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	18900	kgf/cm <sup>2</sup>	ASTM D 638
Flexural Stress	840	kgf/cm <sup>2</sup>	ASTM D 790
Flexural Modulus	21700	kgf/cm <sup>2</sup>	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	2140	MPa	ISO 527
Flexural Stress	78	MPa	ISO 178
Flexural Modulus	2130	MPa	ISO 178
<b>IMPACT</b>			
Izod Impact, unnotched, 23°C	NB	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	72	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	408	cm-kgf	ASTM D 3763
Multiaxial Impact	492	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	137	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	56	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL</b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	140	°C	ASTM D 648

(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±176.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.

Source GMD, last updated:

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TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>THERMAL</b>			
HDT, 1.82 MPa, 3.2mm, unannealed	126	°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
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	126	°C	ISO 75/Af
<b>PHYSICAL</b>			
Density	1.17	g/cm <sup>3</sup>	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.13	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.7 - 0.9	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.7 - 0.9	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.7 - 0.9	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.7 - 0.9	%	ISO 294
Wear Factor Washer	60	10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.16	-	ASTM D 3702 Modified
Static COF	0.09	-	ASTM D 3702 Modified
Density	1.17	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.19	%	ISO 62
<b>FLAME CHARACTERISTICS</b>			
UL Recognized, 94HB Flame Class Rating (3)	1.5	mm	UL 94

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
<b>Injection Molding</b>		
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

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