

## LNP\* Lubriloy\* Compound D20001

Americas: COMMERCIAL

Also known as: D-FR ECO

Product Reorder Name: D20001

LNP LUBRILLOY\* D20001 is a compound based on Polycarbonate resin containing Flame Retardant, Proprietary Lubricant. Added features of this material include: Flame Retardant.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yield	67	MPa	ASTM D 638
Tensile Stress, break	60	MPa	ASTM D 638
Tensile Strain, yield	4.5	%	ASTM D 638
Tensile Strain, break	6.5	%	ASTM D 638
Tensile Modulus, 50 mm/min	2550	MPa	ASTM D 638
Flexural Stress	103	MPa	ASTM D 790
Flexural Modulus	2820	MPa	ASTM D 790
Tensile Stress, yield	62	MPa	ISO 527
Tensile Stress, break	54	MPa	ISO 527
Tensile Strain, yield	4.3	%	ISO 527
Tensile Strain, break	6.7	%	ISO 527
Tensile Modulus, 1 mm/min	2600	MPa	ISO 527
Flexural Stress	102	MPa	ISO 178
Flexural Modulus	2800	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	1612	J/m	ASTM D 4812
Izod Impact, notched, 23°C	64	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	51	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	104	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m <sup>2</sup>	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	97	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	89	°C	ASTM D 648

CTE, -40°C to 40°C, flow	6.57E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.66E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	6.57E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.65E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	94	°C	ISO 75/Af
<b>PHYSICAL</b>	<b>Value</b>	<b>Unit</b>	<b>Standard</b>
Density	1.2	g/cm <sup>3</sup>	ASTM D 792
Mold Shrinkage, flow, 24 hrs	0.5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.6	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.53	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.57	%	ISO 294
Wear Factor Washer	30	10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.09	-	ASTM D 3702 Modified
Static COF	0.22	-	ASTM D 3702 Modified
Density	1.2	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.12	%	ISO 62
<b>FLAME CHARACTERISTICS</b>	<b>Value</b>	<b>Unit</b>	<b>Standard</b>
UL Compliant, 94V-0 Flame Class Rating (3)(4)	1.5	mm	UL 94 by GE

Source GMD, last updated:09/30/2004

## Processing

Parameter		
Injection Molding	Value	Unit
Drying Temperature	80	°C
Drying Time	4 - 6	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	255 - 290	°C
Front - Zone 3 Temperature	260 - 270	°C
Middle - Zone 2 Temperature	255 - 265	°C
Rear - Zone 1 Temperature	250 - 260	°C
Mold Temperature	40 - 65	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

Source GMD, last updated:09/30/2004

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(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.

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