



LNP™ LUBRILOY™ Compound D20001

Americas: COMMERCIAL

Also known as: LNP™ LUBRILOY™ Compound D-FR ECO

Product reorder name: D20001

LNP LUBRILOY™ D20001 is a compound based on Polycarbonate resin containing Proprietary Lubricant. Added features of this material include: Flame Retardant. Wear Resistant.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	680	kgf/cm ²	ASTM D 638
Tensile Stress, break	610	kgf/cm ²	ASTM D 638
Tensile Strain, yield	4.5	%	ASTM D 638
Tensile Strain, break	6.5	%	ASTM D 638
Tensile Modulus, 50 mm/min	26000	kgf/cm ²	ASTM D 638
Flexural Stress	1050	kgf/cm ²	ASTM D 790
Flexural Modulus	28800	kgf/cm ²	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			
Izod Impact, unnotched, 23°C	164	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	6	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	520	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	104	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m ²	ISO 180/1A
THERMAL			
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



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
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
PHYSICAL			
Density	1.2	g/cm ³	ASTM D 792
Mold Shrinkage, flow, 24 hrs (5)	0.5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.6	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.53	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.57	%	ISO 294
Wear Factor Washer	10	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.29	-	ASTM D 3702 Modified
Static COF	0.16	-	ASTM D 3702 Modified
Density	1.2	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.12	%	ISO 62
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating (3)	1.5	mm	UL 94



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
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