LNP™ LUBRILOY™ COMPOUND D20001

D-FR ECO
REGION AMERICAS

DESCRIPTION

LNP LUBRILOY D20001 compound is based on Polycarbonate (PC) resin containing proprietary lubricant. Added features of this grade include: Non-Brominated, Non-Chlorinated Flame Retardant, Wear Resistant.

GENERAL INFORMATION	
Features	Flame Retardant, Wear resistant, Non Cl/Br flame retardant
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	67	MPa	ASTM D638
Tensile Stress, break	60	MPa	ASTM D638
Tensile Strain, yield	4.5	%	ASTM D638
Tensile Strain, break	6.5	%	ASTM D638
Tensile Modulus, 50 mm/min	2550	MPa	ASTM D638
Flexural Stress	103	MPa	ASTM D790
Flexural Modulus	2820	MPa	ASTM D790
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 [1]			
Izod Impact, unnotched, 23°C	1612	J/m	ASTM D4812
Izod Impact, notched, 23°C	64	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	51	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	104	kJ/m²	ISO 180/1U

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	97	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	89	°C	ASTM D648
CTE, -40°C to 40°C, flow	6.57E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.66E-05	1/°C	ASTM E831
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
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	1.2	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs [3]	0.5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	0.6	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [3]	0.53	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [3]	0.57	%	ISO 294
Wear Factor Washer	10	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.29	-	ASTM D3702 Modified: Manual
Static COF	0.16	-	ASTM D3702 Modified: Manual
Density	1.2	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.12	%	ISO 62
ELECTRICAL [1]			
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-101283819	-	-
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
UL Recognized, 94V-2 Flame Class Rating	0.8	mm	UL 94
UL Recognized, 94HB Flame Class Rating	0.5	mm	UL 94
INJECTION MOLDING [4]			
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	

(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.

APPLICATIONS

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