

# LNPTM LUBRICOMPTM COMPOUND DL002P

DL-4020 EP

## DESCRIPTION

LNP LUBRICOMP DL002P compound is based on Polycarbonate (PC) resin containing 10% PTFE. Added features of this grade include: Exceptional Processing, Wear Resistant.

GENERAL INFORMATION	
Features	High Flow, Wear resistant
Fillers	Unreinforced, PTFE
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
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, yield	53	MPa	ASTM D638
Tensile Stress, break	44	MPa	ASTM D638
Tensile Strain, yield	5.3	%	ASTM D638
Tensile Strain, break	30.5	%	ASTM D638
Tensile Modulus, 50 mm/min	2450	MPa	ASTM D638
Flexural Stress	82	MPa	ASTM D790
Flexural Modulus	2200	MPa	ASTM D790
Tensile Stress, yield	54	MPa	ISO 527
Tensile Stress, break	43	MPa	ISO 527
Tensile Strain, yield	5.6	%	ISO 527
Tensile Strain, break	23.1	%	ISO 527
Tensile Modulus, 1 mm/min	2460	MPa	ISO 527
Flexural Stress	85	MPa	ISO 178
Flexural Modulus	2070	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, notched, 23°C	106	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	34	J	ASTM D3763
Multiaxial Impact	74	J	ISO 6603
Izod Impact, unnotched 80°10°4 +23°C	NB	kJ/m <sup>2</sup>	ISO 180/1U

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched 80*10*4 +23°C	10	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL <sup>(1)</sup></b>			
HDT, 1.82 MPa, 3.2mm, unannealed	120	°C	ASTM D648
CTE, -40°C to 40°C, flow	6.66E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.2E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	6.67E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.33E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	123	°C	ISO 75/Af
<b>PHYSICAL <sup>(1)</sup></b>			
Density	1.24	g/cm <sup>3</sup>	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.1	%	ASTM D570
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.7 – 0.9	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	1 – 1.2	%	ASTM D955
Melt Volume Rate, MVR at 300°C/1.2 kg	13.5	cm <sup>3</sup> /10 min	ASTM D1238
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.7 – 0.9	%	ISO 294
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	1 – 1.2	%	ISO 294
Wear Factor Washer	97	10 <sup>-10</sup> in <sup>4</sup> -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.28	-	ASTM D3702 Modified: Manual
Static COF	0.17	-	ASTM D3702 Modified: Manual
Density	1.25	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
<b>INJECTION MOLDING <sup>(3)</sup></b>			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	300 – 315	°C	
Front - Zone 3 Temperature	310 – 320	°C	
Middle - Zone 2 Temperature	305 – 315	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	80 – 110	°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) 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.
- (3) 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.

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