

# LNPT<sup>TM</sup> LUBRICOMP<sup>TM</sup> COMPOUND WL004

WL-4040

REGION AMERICAS

## DESCRIPTION

LNP LUBRICOMP WL004 compound is based on Polybutylene Terephthalate (PBT) resin containing 20% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant
Fillers	Unreinforced, PTFE
Polymer Types	Polybutylene Terephthalate (PBT)
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 20230607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, break	48	MPa	ASTM D638
Tensile Strain, break	9.8	%	ASTM D638
Tensile Modulus, 50 mm/min	2410	MPa	ASTM D638
Flexural Stress	78	MPa	ASTM D790
Flexural Modulus	2410	MPa	ASTM D790
Tensile Stress, break	45	MPa	ISO 527
Tensile Strain, break	8.4	%	ISO 527
Tensile Modulus, 1 mm/min	2420	MPa	ISO 527
Flexural Stress	77	MPa	ISO 178
Flexural Modulus	2390	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	437	J/m	ASTM D4812
Izod Impact, notched, 23°C	37	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	27	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL <sup>(1)</sup></b>			
HDT, 1.82 MPa, 3.2mm, unannealed	55	°C	ASTM D648
CTE, -40°C to 40°C, flow	8.96E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	9.57E-05	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	8.96E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	9.58E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	61	°C	ISO 75/Af
Relative Temp Index, Elec <sup>(2)</sup>	75	°C	UL 746B
Relative Temp Index, Mech w/impact <sup>(2)</sup>	75	°C	UL 746B
Relative Temp Index, Mech w/o impact <sup>(2)</sup>	75	°C	UL 746B
<b>PHYSICAL <sup>(1)</sup></b>			
Density	1.43	g/cm <sup>3</sup>	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.05	%	ASTM D570
Mold Shrinkage, flow, 24 hrs <sup>(3)</sup>	2.1 – 2.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(3)</sup>	2.1 – 2.4	%	ASTM D955
Mold Shrinkage, flow, 24 hrs <sup>(3)</sup>	2.44 – 2.54	%	ISO 294
Mold Shrinkage, xflow, 24 hrs <sup>(3)</sup>	2.14 – 2.3	%	ISO 294
Wear Factor Washer	58	10 <sup>-4</sup> -10 in <sup>4</sup> -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.33	-	ASTM D3702 Modified: Manual
Static COF	0.24	-	ASTM D3702 Modified: Manual
Density	1.43	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.08	%	ISO 62
<b>FLAME CHARACTERISTICS <sup>(2)</sup></b>			
UL Yellow Card Link	<a href="#">E121562-101282607</a>	-	-
UL Recognized, 94HB Flame Class Rating	≥1.5	mm	UL 94
<b>INJECTION MOLDING <sup>(4)</sup></b>			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	240 – 265	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	245 – 255	°C	
Rear - Zone 1 Temperature	220 – 230	°C	
Mold Temperature	80 – 100	°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.

## MORE INFORMATION

For curve data and CAE cards, please visit and register at <https://materialfinder.sabic-specialties.com>



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