

# LNPTM LUBRICOMPTM COMPOUND OCL36

OCL-4036

REGION AMERICAS

## DESCRIPTION

LNP LUBRICOMP OCL36 compound is based on Polyphenylene Sulfide (PPS) - linear resin containing 30% carbon fiber and 15% PTFE. Added features of this grade include: Electrically Conductive, Wear Resistant.

GENERAL INFORMATION	
Features	Electrically Conductive, Wear resistant, Carbon fiber filled, High stiffness/Strength
Fillers	Carbon Fiber, PTFE
Polymer Types	Polyphenylene Sulfide, Linear (PPS, Linear)
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, break	168	MPa	ASTM D638
Tensile Strain, break	1.4	%	ASTM D638
Tensile Modulus, 5 mm/min	21510	MPa	ASTM D638
Flexural Stress	259	MPa	ASTM D790
Flexural Modulus	21110	MPa	ASTM D790
Tensile Stress, break	166	MPa	ISO 527
Tensile Strain, break	1.1	%	ISO 527
Tensile Modulus, 1 mm/min	30680	MPa	ISO 527
Flexural Stress	262	MPa	ISO 178
Flexural Modulus	21200	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	443	J/m	ASTM D4812
Izod Impact, notched, 23°C	58	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	15	J	ASTM D3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	31	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
<b>THERMAL <sup>(1)</sup></b>			
HDT, 1.82 MPa, 3.2mm, unannealed	267	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	1.62E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	3.42E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	1.76E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.44E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	263	°C	ISO 75/Af
<b>PHYSICAL <sup>(1)</sup></b>			
Density	1.52	g/cm <sup>3</sup>	ASTM D792
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.2 – 0.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	0.3 – 0.4	%	ASTM D955
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.2 – 0.4	%	ISO 294
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	0.36 – 0.4	%	ISO 294
Wear Factor Washer	19	10 <sup>-10</sup> in <sup>4</sup> 5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.39	-	ASTM D3702 Modified: Manual
Static COF	0.34	-	ASTM D3702 Modified: Manual
Density	1.52	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.03	%	ISO 62
<b>FLAME CHARACTERISTICS <sup>(1)</sup></b>			
UL Compliant, 94V-0 Flame Class Rating <sup>(3)</sup>	1.8	mm	UL 94 by SABIC-IP
<b>INJECTION MOLDING <sup>(4)</sup></b>			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Melt Temperature	315 – 320	°C	
Front - Zone 3 Temperature	330 – 345	°C	
Middle - Zone 2 Temperature	320 – 330	°C	
Rear - Zone 1 Temperature	305 – 315	°C	
Mold Temperature	140 – 165	°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) UL rating shown here is based on internal measurements.

(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.

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