

# LNPTM LUBRICOMPTM COMPOUND RFL36L

RFL-4036 LE

## DESCRIPTION

LNP LUBRICOMP RFL36L compound is based on Nylon 6/6 resin containing 30% glass fiber, 15% PTFE. Added features of this grade include: Wear Resistant, Low Extractable.

GENERAL INFORMATION	
Features	Wear resistant, Food contact, High stiffness/Strength
Fillers	Glass Fiber, PTFE
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding

  

INDUSTRY	SUB INDUSTRY
Building and Construction	Water Management
Consumer	Home Appliances
Packaging	Industrial Packaging, Food & Beverage

## TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, yield	152	MPa	ISO 527
Tensile Stress, break	152	MPa	ISO 527
Tensile Strain, yield	2.8	%	ISO 527
Tensile Strain, break	2.8	%	ISO 527
Tensile Modulus, 1 mm/min	10050	MPa	ISO 527
Flexural Stress	230	MPa	ISO 178
Flexural Modulus	9300	MPa	ISO 178
Tensile Stress, yield	151	MPa	ASTM D638
Tensile Stress, break	151	MPa	ASTM D638
Tensile Strain, yield	2.8	%	ASTM D638
Tensile Strain, break	2.8	%	ASTM D638
Tensile Modulus, 50 mm/min	10340	MPa	ASTM D638
Flexural Stress	213	MPa	ASTM D790
Flexural Modulus	8270	MPa	ASTM D790
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, notched 80*10*4 +23°C	10	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	61	kJ/m <sup>2</sup>	ISO 180/1U
Multiaxial Impact	2	J	ISO 6603
Izod Impact, notched, 23°C	96	J/m	ASTM D256
Izod Impact, unnotched, 23°C	1009	J/m	ASTM D4812
Instrumented Dart Impact Energy @ peak, 23°C	12	J	ASTM D3763

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>THERMAL <sup>(1)</sup></b>			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	260	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	247	°C	ISO 75/Af
CTE, -40°C to 40°C, flow	2.90E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.40E-05	1/°C	ISO 11359-2
HDT, 0.45 MPa, 3.2 mm, unannealed	261	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	252	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.88E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.38E-05	1/°C	ASTM E831
<b>PHYSICAL <sup>(1)</sup></b>			
Density	1.52	g/cm <sup>3</sup>	ISO 1183
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.4 – 0.6	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	1.3 – 1.5	%	ASTM D955
Density	1.52	g/cm <sup>3</sup>	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.4	%	ASTM D570
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.53	%	ISO 294
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	1.4	%	ISO 294
Wear Factor Washer	4	10 <sup>-10</sup> in <sup>4</sup> -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.66	-	ASTM D3702 Modified: Manual
Static COF	0.65	-	ASTM D3702 Modified: Manual
<b>INJECTION MOLDING <sup>(3)</sup></b>			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	280 – 305	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Rear - Zone 1 Temperature	265 – 275	°C	
Mold Temperature	95 – 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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