

# LNPTM LUBRICOMPTM COMPOUND RFL16

RFL-4016

## DESCRIPTION

LNP LUBRICOMP RFL16 compound is based on Nylon 6/6 resin containing 30% glass fiber, 5% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, High stiffness/Strength
Fillers	Glass Fiber, PTFE
Polymer Types	Polyamide 66 (Nylon 66)
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, 5 mm/min	188	MPa	ISO 527
Tensile Stress, break, 5 mm/min	185	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.8	%	ISO 527
Tensile Strain, break, 5 mm/min	2.7	%	ISO 527
Tensile Modulus, 1 mm/min	10630	MPa	ISO 527
Flexural Modulus, 2 mm/min	8980	MPa	ISO 178
Tensile Stress, brk, Type I, 5 mm/min	189	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.7	%	ASTM D638
Tensile Modulus, 5 mm/min	11020	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	263	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	8920	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	62	kJ/m <sup>2</sup>	ISO 180/1U
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched, 23°C	1070	J/m	ASTM D4812
Izod Impact, notched, 23°C	110	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	9	J	ASTM D3763
<b>THERMAL <sup>(1)</sup></b>			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	251	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	262	°C	ISO 75/Bf

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	259	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	249	°C	ASTM D648
CTE, -30°C to 30°C, flow	4.0E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	9.2E-05	1/°C	ASTM D696
Relative Temp Index, Elec <sup>(2)</sup>	65	°C	UL 746B
Relative Temp Index, Mech w/impact <sup>(2)</sup>	65	°C	UL 746B
Relative Temp Index, Mech w/o impact <sup>(2)</sup>	65	°C	UL 746B
<b>PHYSICAL <sup>(1)</sup></b>			
Density	1.4	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.88	%	ISO 62
Specific Gravity	1.4	-	ASTM D792
Density	1.43	g/cm <sup>3</sup>	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.57	%	ASTM D570
Wear Factor Washer	16	10 <sup>-10</sup> in <sup>4</sup> -min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	0	10 <sup>-10</sup> in <sup>4</sup> -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.62	-	ASTM D3702 Modified: Manual
Static COF	0.53	-	ASTM D3702 Modified: Manual
<b>FLAME CHARACTERISTICS <sup>(2)</sup></b>			
UL Yellow Card Link	<a href="#">E121562-101282711</a>	-	-
UL Yellow Card Link 2	<a href="#">E207780-103093655</a>	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
<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) 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) 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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