

# LNPTM LUBRICOMPTM COMPOUND RI001

RL-4410

REGION AMERICAS

## DESCRIPTION

LNP LUBRICOMP RI001 compound is based on Nylon 6/6 resin containing 2% silicone. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant
Fillers	Unreinforced, Silicone
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

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL <sup>(1)</sup>			
Tensile Stress, brk, Type I, 5 mm/min	61	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.6	%	ASTM D638
Tensile Modulus, 5 mm/min	3200	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2910	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	68	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.7	%	ISO 527
Tensile Strain, break, 5 mm/min	4.4	%	ISO 527
Tensile Modulus, 1 mm/min	2930	MPa	ISO 527
Flexural Stress	96	MPa	ISO 178
Flexural Modulus, 2 mm/min	2690	MPa	ISO 178
IMPACT <sup>(1)</sup>			
Izod Impact, unnotched, 23°C	1630	J/m	ASTM D4812
Izod Impact, notched, 23°C	45	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	6	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	214	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m <sup>2</sup>	ISO 180/1A
THERMAL <sup>(1)</sup>			
HDT, 0.45 MPa, 3.2 mm, unannealed	241	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	66	°C	ASTM D648
CTE, -30°C to 30°C, flow	8.3E-05	1/°C	ASTM D696

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -30°C to 30°C, xflow	8.E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	164	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	59	°C	ISO 75/Af
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
PHYSICAL <sup>(1)</sup>			
Specific Gravity	1.15	-	ASTM D792
Density	1.14	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	1.2	%	ASTM D570
Mold Shrinkage, flow, 24 hrs <sup>(3)</sup>	2 – 4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(3)</sup>	2 – 4	%	ASTM D955
Wear Factor Washer	104	10 <sup>-10</sup> in <sup>4</sup> -min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	-1	10 <sup>-10</sup> in <sup>4</sup> -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.43	-	ASTM D3702 Modified: Manual
Static COF	0.26	-	ASTM D3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	1.5	%	ISO 62
FLAME CHARACTERISTICS <sup>(2)</sup>			
UL Yellow Card Link	<a href="#">E121562-101344711</a>	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING <sup>(4)</sup>			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	275 – 290	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Rear - Zone 1 Temperature	265 – 275	°C	
Mold Temperature	80 – 95	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	