

LNPTM LUBRICOMPTM COMPOUND RP003

RL-4530

REGION AMERICAS

DESCRIPTION

LNP LUBRICOMP RP003 compound is based on Nylon 6/6 resin containing 15% PTFE/silicone. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant
Fillers	Unreinforced, PTFE/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 ⁽¹⁾			
Tensile Stress, yld, Type I, 5 mm/min	52	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	49	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	4.6	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	4.7	%	ASTM D638
Tensile Modulus, 50 mm/min	2700	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	73	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	73	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2260	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	55	MPa	ISO 527
Tensile Stress, break, 5 mm/min	55	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4.8	%	ISO 527
Tensile Strain, break, 5 mm/min	4.7	%	ISO 527
Tensile Modulus, 1 mm/min	2960	MPa	ISO 527
Flexural Modulus, 2 mm/min	2580	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	379	J/m	ASTM D4812
Izod Impact, notched, 23°C	37	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	1	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	26	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	201	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	59	°C	ASTM D648
CTE, -40°C to 40°C, flow	9.E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	9.54E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	9.1E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	9.6E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	221	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	66	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Density	1.27	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.6	%	ASTM D570
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	1 – 3	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽²⁾	1 – 3	%	ISO 294
Wear Factor Washer	10	10 ⁻¹⁰ in ⁴ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.22	-	ASTM D3702 Modified: Manual
Static COF	0.16	-	ASTM D3702 Modified: Manual
Density	1.27	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.97	%	ISO 62
INJECTION MOLDING ⁽³⁾			
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	