

LNPTM LUBRICOMPTM COMPOUND RCP36

RCL-4536

REGION AMERICAS

DESCRIPTION

LNP LUBRICOMP RCP36 compound is based on Nylon 6/6 resin containing 30% carbon fiber, 15% PTFE/silicone. 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/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, break	201	MPa	ASTM D638
Tensile Strain, break	1.4	%	ASTM D638
Tensile Modulus, 50 mm/min	29500	MPa	ASTM D638
Flexural Stress	333	MPa	ASTM D790
Flexural Modulus	16400	MPa	ASTM D790
Tensile Stress, break	228	MPa	ISO 527
Tensile Strain, break	2	%	ISO 527
Tensile Modulus, 1 mm/min	23100	MPa	ISO 527
Flexural Stress	354	MPa	ISO 178
Flexural Modulus	21300	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	945	J/m	ASTM D4812
Izod Impact, notched, 23°C	96	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	9	J	ASTM D3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	65	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	10	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	254	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	244	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.16E-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	2.29E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.42E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	240	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Density	1.34	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.93	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.4	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.15	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.43	%	ISO 294
Wear Factor Washer	6	10 ⁻⁴ in ³ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.25	-	ASTM D3702 Modified: Manual
Static COF	0.22	-	ASTM D3702 Modified: Manual
Density	1.34	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.35	%	ISO 62
FLAME CHARACTERISTICS ⁽³⁾			
UL Yellow Card Link	E121562-101281618	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			
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	