

LNPTM LUBRICOMPTM COMPOUND RCL36S

RCL-4036 HS

DESCRIPTION

LNP LUBRICOMP RCL36S compound is based on Nylon 6/6 resin containing 30% carbon fiber, 15% PTFE. Added features of this grade include: Electrically Conductive, Wear Resistant, Heat Stabilized.

GENERAL INFORMATION	
Features	Electrically Conductive, Heat Stabilized, Wear resistant, Carbon fiber filled, High stiffness/Strength
Fillers	Carbon 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

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, break	182	MPa	ASTM D638
Tensile Strain, break	0.9	%	ASTM D638
Tensile Modulus, 50 mm/min	32400	MPa	ASTM D638
Flexural Stress	372	MPa	ASTM D790
Flexural Modulus	18400	MPa	ASTM D790
Tensile Stress, break	245	MPa	ISO 527
Tensile Strain, break	1.8	%	ISO 527
Tensile Modulus, 1 mm/min	22600	MPa	ISO 527
Flexural Stress	395	MPa	ISO 178
Flexural Modulus	22700	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	1046	J/m	ASTM D4812
Izod Impact, notched, 23°C	101	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	10	J	ASTM D3763
Multiaxial Impact	3	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	68	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	255	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	>240	°C	ISO 75/Af

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL ⁽¹⁾			
Density	1.38	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.53	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.1	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.7	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.11	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.72	%	ISO 294
Wear Factor Washer	15	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.36	-	ASTM D3702 Modified: Manual
Static COF	0.3	-	ASTM D3702 Modified: Manual
Density	1.38	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.84	%	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	