

LNPTTM LUBRICOMPTTM COMPOUND RFL36

RFL4036, PA 6.6

DESCRIPTION

LNP LUBRICOMP RFL36 compound is based on Nylon 6/6 resin containing 30% glass fiber, 15% 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

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, break, 5 mm/min	166	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.6	%	ISO 527
Flexural Stress, yield, 2 mm/min	234	MPa	ISO 178
Flexural Stress, break, 2 mm/min	277	MPa	ISO 178
Flexural Strain, break, 2 mm/min	4.1	%	ISO 178
Flexural Modulus, 2 mm/min	9100	MPa	ISO 178
Flexural Strain, break, 2 mm/min, 60°C	6.1	%	ISO 178
Flexural Strain, break, 2 mm/min, 100°C	6.6	%	ISO 178
Flexural Strain, break, 2 mm/min, 150°C	5.6	%	ISO 178
Flexural Strain, break, 2 mm/min, 200°C	6.3	%	ISO 178
Flexural Stress, yield, 2 mm/min, 60°C	179	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 100°C	131	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 150°C	96	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 200°C	83	MPa	ISO 178
Flexural Modulus, 2 mm/min, 60°C	5300	MPa	ISO 178
Flexural Modulus, 2 mm/min, 100°C	4200	MPa	ISO 178
Flexural Modulus, 2 mm/min, 150°C	3500	MPa	ISO 178
Flexural Modulus, 2 mm/min, 200°C	3100	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, notched 80*10*3 -40°C	12	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	84	kJ/m ²	ISO 180/1U

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, unnotched 80*10*4 -40°C	74	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	16	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
Specific Heat	1988	J/kg·K	ASTM E1269
CTE, 23°C to 60°C, flow	2.5E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	7.5E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	>220	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	>220	°C	ISO 75/Af
Thermal Conductivity	0.25	W/m·K	ASTM D5930
Relative Temp Index, Elec ⁽²⁾	120	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	65	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	65	°C	UL 746B
PHYSICAL ⁽¹⁾			
Wear Factor Washer	12	10 ⁻⁴ in ³ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.59	-	ASTM D3702 Modified: Manual
Density	1.51	g/cm ³	ISO 1183
Water Absorption, (23°C/24hrs)	1.34	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.46	%	ISO 62
Melt Volume Rate, MVR at 275°C/5 kg	15 – 20	cm ³ /10 min	ISO 1133
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.2 – 0.5	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.8 – 1.2	%	ISO 294
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	E121562-101344610	-	-
UL Yellow Card Link 2	E207780-101282824	-	-
UL Yellow Card Link 3	E45329-101344595	-	-
UL Recognized, 94HB Flame Class Rating	≥0.75	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			
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	