

LNPTM LUBRICOMPTM COMPOUND RFL36XXY

RFL-4036

DESCRIPTION

LNP LUBRICOMP RFL36XXY is a compound based on Nylon 66 containing 30% Glass Fiber, 15% PTFE. Added feature of this grade is: Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20200110

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	139	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.1	%	ASTM D 638
Tensile Modulus, 50 mm/min	11230	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	236	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	9740	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	138	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	9800	MPa	ISO 527
Flexural Stress	211	MPa	ISO 178
Flexural Modulus, 2 mm/min	9700	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	907	J/m	ASTM D 4812
Izod Impact, notched, 23°C	106	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	10	J	ASTM D 3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80°10°4 +23°C	51	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	10	kJ/m ²	ISO 180/1A
Izod Impact, notched 80°10°4 -40°C	7	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	248	°C	ASTM D 648
CTE, -40°C to 40°C, flow	3.79E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	5.5E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	3.78E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.5E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80°10°4 sp=64mm	248	°C	ISO 75/Af
Relative Temp Index, Elec ⁽¹⁾	120	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽¹⁾	65	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽¹⁾	65	°C	UL 746B
PHYSICAL			
Density	1.51	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.62	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1.1	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.32	%	ISO 294

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs	1.15	%	ISO 294
Wear Factor Washer	12	10 ⁻⁴ in ³ -min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.59	-	ASTM D 3702 Modified: Manual
Static COF	0.46	-	ASTM D 3702 Modified: Manual
Density	1.51	g/cm ³	ISO 1183
FLAME CHARACTERISTICS ⁽¹⁾			
UL Yellow Card Link	E121562-101344610	-	-
UL Yellow Card Link 2	E207780-101282824	-	-
UL Recognized, 94HB Flame Class Rating	≥0.75	mm	UL 94
INJECTION MOLDING			
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	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

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