LNP™ LUBRICOMP™ COMPOUND RFL33

RFL-4033
REGION ASIA

DESCRIPTION

LNP LUBRICOMP RFL33 is a compound based on Nylon 66 resin containing 15% Glass Fiber, 15% PTFE. Added feature of this material is: Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20190409

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	119	MPa	ASTM D 638
Tensile Stress, break	119	MPa	ASTM D 638
Tensile Strain, yield	3.1	%	ASTM D 638
Tensile Strain, break	3.1	%	ASTM D 638
Tensile Modulus, 50 mm/min	6890	MPa	ASTM D 638
Flexural Stress	179	MPa	ASTM D 790
Flexural Modulus	5510	MPa	ASTM D 790
Tensile Stress, yield	118	MPa	ISO 527
Tensile Stress, break	118	MPa	ISO 527
Tensile Strain, yield	3	%	ISO 527
Tensile Strain, break	3	%	ISO 527
Tensile Modulus, 1 mm/min	6200	MPa	ISO 527
Flexural Stress	183	MPa	ISO 178
Flexural Modulus	5800	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	571	J/m	ASTM D 4812
Izod Impact, notched, 23°C	64	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	7	J	ASTM D 3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	35	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	261	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	247	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.28E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	3.96E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	8.3E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.9E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	260	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	243	°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

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL			
Density	1.37	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.6	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.5 – 0.7	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1.6 – 1.8	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.64	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	1.7	%	ISO 294
Wear Factor Washer	19	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.39	-	ASTM D 3702 Modified: Manual
Static COF	0.45	-	ASTM D 3702 Modified: Manual
Density	1.36	g/cm³	ISO 1183
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	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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