LNP™ LUBRILOY™ COMPOUND RF206

RF-30

DESCRIPTION

LNP LUBRILOY RF206 is a compound based on Nylon 66 resin containing 30% Glass Fiber, Proprietary Lubricant, Added features of this material includes: Wear Resistant.

INDUSTRY	SUB INDUSTRY
Building and Construction	Outdoor, Lawn and Landscape
Consumer	Home Decoration
Electrical and Electronics	Electrical Components and Infrastructure
Hydrocarbon and Energy	Fossil

TYPICAL PROPERTY VALUES

Revision 20191223

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Modulus, 5 mm/min	9000	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.5	%	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	122	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	7200	MPa	ASTM D 790
Flexural Strength, 1.3 mm/min, 50 mm span	190	MPa	ASTM D 790
Tensile Modulus, 1 mm/min	9000	MPa	ISO 527
Tensile Strain, break, 5 mm/min	3.2	%	ISO 527
Tensile Stress, break, 5 mm/min	135	MPa	ISO 527
Flexural Modulus, 2 mm/min	7500	MPa	ISO 178
Flexural Strength, 2 mm/min	195	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	95	J/m	ASTM D 256
Izod Impact, unnotched, 23°C	800	J/m	ASTM D 4812
Instrumented Impact Energy @ peak, 23°C	12	J	ASTM D 3763
Instrumented Impact Total Energy, 23°C	13	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	12	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	58	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	17	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	70	kJ/m²	ISO 179/1eU
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	258	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	241	°C	ASTM D 648
Vicat Softening Temp, Rate B/50	185	°C	ASTM D 1525
CTE, -40°C to 40°C, flow	3.7E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.9E-05	1/°C	ASTM E 831
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	228	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	252	°C	ISO 75/Bf

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/120	185	°C	ISO 306
Vicat Softening Temp, Rate B/50	185	°C	ISO 306
CTE, 23°C to 60°C, flow	1.9E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.1E-04	1/°C	ISO 11359-2
Relative Temp Index, Elec [1]	65	°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	1.24	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.3 – 0.6	%	ASTM D 570
Water Absorption, 24 hours	0.3 – 0.6	%	ASTM D 570
Melt Flow Rate, 300°C/2.16 kgf	30	g/10 min	ASTM D 1238
Dynamic COF	0.51	-	ASTM D 3702 Modified: Manual
Static COF	0.5	-	ASTM D 3702 Modified: Manual
Wear Factor Washer	36	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Water Absorption, 23°C/24hrs	0.3 – 0.6	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.3 – 0.6	%	ISO 62
Melt Volume Rate, MVR at 300°C/2.16 kg	30	cm³/10 min	ISO 1133
Density	1.24	g/cm³	ISO 1183
Mold Shrinkage, flow	0.2 – 0.6	%	SABIC method
Mold Shrinkage, xflow	1 – 1.4	%	SABIC method
FLAME CHARACTERISTICS [1]			
UL Yellow Card Link	E121562-101344704	-	-
UL Yellow Card Link 2	E45329-101282646	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	270 – 280	°C	
Rear - Zone 1 Temperature	265 – 275	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Mold Temperature	80 – 95	°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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