LNP™ LUBRILOY™ Compound RF203

DESCRIPTION

LNP LUBRILOY RF203 compound is based on Nylon 6/6 resin containing 15% glass fiber and proprietary lubricant. Added features of this grade include: Internally Lubricated, Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
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

Revision 20241017

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break, 5 mm/min	99	MPa	ISO 527
Tensile Strain, break, 5 mm/min	3.5	%	ISO 527
Tensile Modulus, 1 mm/min	5300	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	133	MPa	ISO 178
Flexural Stress, break, 2 mm/min	122	MPa	ISO 178
Flexural Modulus, 2 mm/min	4100	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched 80*10*4 +23°C	50	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
THERMAL [1]			
CTE, 23°C to 60°C, flow	4.1E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.31E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	245	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	185	°C	ISO 75/Af
Relative Temp Index, Elec [2]	65	°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]			
Mold Shrinkage, flow	0.3 – 0.5	%	SABIC method
Wear Factor Washer	70	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.36	-	ASTM D3702 Modified: Manual

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Static COF	0.3	-	ASTM D3702 Modified: Manual
Density	1.12	g/cm³	ISO 1183
Water Absorption, (23°C/24hrs)	0.37	%	ISO 62-1
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E45329-101283833	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING [3]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	270 – 280	°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	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) 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.

(3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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