LNP™ LUBRICOMP™ 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

Revision 20230607

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/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	84	kJ/m²	ISO 180/1U

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, unnotched 80*10*4 -40°C	74	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	16	kJ/m²	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^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.59	-	ASTM D3702 Modified: Manual
Density	1.51	g/cm³	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	cm³/10 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	

(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) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(4) 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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MORE INFORMATION

For curve data and CAE cards, please visit and register at https://materialfinder.sabic-specialties.com

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