

LNPT[™] LUBRICOMP[™] COMPOUND RFL34

RFL-4034

DESCRIPTION

LNP LUBRICOMP RFL34 compound is based on Nylon 6/6 resin containing 20% glass fiber, 15% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant
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 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yield	155	MPa	ISO 527
Tensile Stress, break	155	MPa	ISO 527
Tensile Strain, yield	3.2	%	ISO 527
Tensile Strain, break	3.2	%	ISO 527
Tensile Modulus, 1 mm/min	8060	MPa	ISO 527
Flexural Stress	223	MPa	ISO 178
Flexural Modulus	7000	MPa	ISO 178
Tensile Stress, yield	157	MPa	ASTM D638
Tensile Stress, break	157	MPa	ASTM D638
Tensile Strain, yield	3.3	%	ASTM D638
Tensile Strain, break	3.3	%	ASTM D638
Tensile Modulus, 50 mm/min	8270	MPa	ASTM D638
Flexural Stress	220	MPa	ASTM D790
Flexural Modulus	6890	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched 80*10*4 +23°C	11	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	67	kJ/m ²	ISO 180/1U
Multiaxial Impact	4	J	ISO 6603
Izod Impact, notched, 23°C	106	J/m	ASTM D256
Izod Impact, unnotched, 23°C	1174	J/m	ASTM D4812
Instrumented Dart Impact Energy @ peak, 23°C	10	J	ASTM D3763

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL ⁽¹⁾			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	262	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	250	°C	ISO 75/Af
CTE, -40°C to 40°C, flow	3.60E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.10E-05	1/°C	ISO 11359-2
HDT, 0.45 MPa, 3.2 mm, unannealed	262	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	252	°C	ASTM D648
CTE, -40°C to 40°C, flow	3.60E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.20E-05	1/°C	ASTM E831
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⁾			
Density	1.42	g/cm ³	ISO 1183
Mold Shrinkage, flow, 24 hrs ⁽³⁾	1.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	1.9	%	ISO 294
Density	1.42	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.5	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽³⁾	1.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	1.9	%	ASTM D955
Wear Factor Washer	10	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.6	-	ASTM D3702 Modified: Manual
Static COF	0.6	-	ASTM D3702 Modified: Manual
FLAME CHARACTERISTICS ⁽²⁾			
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 ⁽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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