LNP™ LUBRICOMP™ COMPOUND IFL34

IFL-4034

DESCRIPTION

LNP LUBRICOMP IFL34 compound is based on Nylon 6/12 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 612 (Nylon 612)
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	115	MPa	ASTM D638
Tensile Stress, break	115	MPa	ASTM D638
Tensile Strain, yield	3.1	%	ASTM D638
Tensile Strain, break	3.1	%	ASTM D638
Tensile Modulus, 50 mm/min	6890	MPa	ASTM D638
Flexural Stress	172	MPa	ASTM D790
Flexural Modulus	5510	MPa	ASTM D790
Tensile Stress, yield	121	MPa	ISO 527
Tensile Stress, break	121	MPa	ISO 527
Tensile Strain, yield	3	%	ISO 527
Tensile Strain, break	3	%	ISO 527
Tensile Modulus, 1 mm/min	7100	MPa	ISO 527
Flexural Stress	176	MPa	ISO 178
Flexural Modulus	6100	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	929	J/m	ASTM D4812
Izod Impact, notched, 23°C	96	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	8	J	ASTM D3763
Multiaxial Impact	3	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	53	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	212	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	197	°C	ASTM D648
CTE, -40°C to 40°C, flow	3.96E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	9.90E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	3.90E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	9.90E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	212	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	195	°C	ISO 75/Af
PHYSICAL [1]			
Density	1.35	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.1	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.3 – 0.5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	1 – 1.2	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [2]	0.41	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	1.1	%	ISO 294
Wear Factor Washer	18	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.46	-	ASTM D3702 Modified: Manual
Static COF	0.47	-	ASTM D3702 Modified: Manual
Density	1.35	g/cm³	ISO 1183
INJECTION MOLDING [3]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.12 – 0.2	%	
Melt Temperature	270 – 275	°C	
Front - Zone 3 Temperature	270 – 280	°C	
Middle - Zone 2 Temperature	260 – 270	°C	
Rear - Zone 1 Temperature	255 – 265	°C	
Mold Temperature	65 – 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) 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.

(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.

DISCLAIMER