LNP™ LUBRICOMP™ COMPOUND IZL33

DESCRIPTION

LNP LUBRICOMP IZL33 compound is based on Nylon 6/12 resin containing 15% milled glass and 15% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Low Warpage, Wear resistant, Dimensional stability
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 20260204

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Flexural Modulus	2500	MPa	ASTM D790
Flexural Modulus	2707	MPa	ISO 178
Flexural Stress	73	MPa	ASTM D790
Tensile Modulus, 5 mm/min	3410	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	4.6	%	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	3.3	%	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	44	MPa	ASTM D638
Tensile Modulus, 1 mm/min	3338	MPa	ISO 527
Tensile Stress, yield, 5 mm/min	45	MPa	ISO 527
Tensile Stress, break, 5 mm/min	44	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3	%	ISO 527
Tensile Strain, break, 5 mm/min	7	%	ISO 527
IMPACT [1]			
Izod Impact, notched, 23°C	32	J/m	ASTM D256
Izod Impact, unnotched, 23°C	188	J/m	ASTM D4812
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	13	kJ/m²	ISO 180/1U
Multiaxial Impact	1.22	J	ISO 6603
Multiaxial Impact	3.6	J	ASTM D3763
THERMAL [1]			
HDT, 1.8 MPa, 3.2mm, unannealed	128	°C	ASTM D648

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	190	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	89	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	175	°C	ISO 75/Bf
CTE, -30°C to 30°C, flow	0.000076	1/°C	ASTM E831
CTE, -30°C to 30°C, xflow	0.000088	1/°C	ASTM E831
PHYSICAL (1)			
Mold Shrinkage, flow, 24 hrs (2)	1.9	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	1.7	%	ASTM D955
Moisture Absorption, (23°C/50% RH/24 hrs)	0.15	%	ASTM D570
Moisture Absorption (23°C / 50% RH)	0.11	%	ISO 62
Wear Factor Washer	77	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.36	-	ASTM D3702 Modified: Manual
Static COF	0.41	-	ASTM D3702 Modified: Manual
Wear Factor Ring	16.7	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Specific Gravity	1.3	-	ASTM D792
Density	1.29	g/cm³	ASTM D792
INJECTION MOLDING (3)			
Drying Temperature	82	°C	
Drying Time	4	Hrs	
Melt Temperature	271 – 276	°C	
Front - Zone 3 Temperature	271 – 282	°C	
Middle - Zone 2 Temperature	260 – 271	°C	
Rear - Zone 1 Temperature	254 – 265	°C	
Mold Temperature	65 – 93	°C	
Back Pressure	0.17 – 0.34	MPa	
Screw Speed	30 – 60	rpm	
Maximum Moisture Content	0.12 – 0.2	%	

(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.

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