LNP™ STAT-LOY™ Compound PF303

PF-15
REGION AMERICAS

DESCRIPTION

LNP STAT-LOY PF303 compound is based on Nylon 6 resin containing 15% glass fiber. Added features of this grade include: Permanently Anti-Static.

GENERAL INFORMATION	
Features	Antistatic, No PFAS intentionally added
Fillers	Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polyamide 6 (Nylon 6)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	82	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	74	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.2	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.3	%	ASTM D638
Tensile Modulus, 50 mm/min	5200	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	121	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	120	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	4250	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	72	MPa	ISO 527
Tensile Stress, break, 5 mm/min	68	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.3	%	ISO 527
Tensile Strain, break, 5 mm/min	2.8	%	ISO 527
Tensile Modulus, 1 mm/min	4740	MPa	ISO 527
Flexural Stress	103	MPa	ISO 178
Flexural Modulus, 2 mm/min	4250	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	700	J/m	ASTM D4812
Izod Impact, notched, 23°C	95	J/m	ASTM D256
Multiaxial Impact	2	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	10	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	44	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	207	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	185	°C	ASTM D648
CTE, -30°C to 30°C, flow	3.1E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	1.37E-04	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	204	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	181	°C	ISO 75/Af
PHYSICAL [1]			
Specific Gravity	1.25	-	ASTM D792
Density	1.25	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs [2]	0.5 – 0.7	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.9 – 2	%	ASTM D955
Density	1.24	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	6.6	%	ISO 62
ELECTRICAL [1]			
Surface Resistivity [3]	1.E+09 – 1.E+11	Ω	ASTM D257
INJECTION MOLDING [4]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	265 – 275	°C	
Front - Zone 3 Temperature	275 – 290	°C	
Middle - Zone 2 Temperature	265 – 275	°C	
Rear - Zone 1 Temperature	250 – 260	°C	
Mold Temperature	80 – 95	°C	
Back Pressure	0.3 – 0.7	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) Measurement meets requirements as specified in ASTM D4496.

(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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