

LNPT[™] STAT-LOY[™] COMPOUND PF306

PF-30

DESCRIPTION

LNP STAT-LOY PF306 compound is based on Nylon 6 resin containing 30% glass fiber. Added features of this grade include: Permanently Anti-Static.

GENERAL INFORMATION

Features	Antistatic
Fillers	Glass Fiber
Polymer Types	Polyamide 6 (Nylon 6)
Processing Techniques	Injection Molding

INDUSTRY

Electrical and Electronics
Industrial

SUB INDUSTRY

Electronic Components
Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yield	83	MPa	ISO 527
Tensile Stress, break	83	MPa	ISO 527
Tensile Strain, yield	2.7	%	ISO 527
Tensile Strain, break	2.8	%	ISO 527
Tensile Modulus, 1 mm/min	7470	MPa	ISO 527
Flexural Stress	106	MPa	ISO 178
Flexural Modulus	6000	MPa	ISO 178
Tensile Stress, yield	93	MPa	ASTM D638
Tensile Stress, break	93	MPa	ASTM D638
Tensile Strain, yield	2.7	%	ASTM D638
Tensile Strain, break	2.8	%	ASTM D638
Tensile Modulus, 50 mm/min	7580	MPa	ASTM D638
Flexural Stress	96	MPa	ASTM D790
Flexural Modulus	5510	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched 80°10°4 +23°C	7	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80°10°4 +23°C	45	kJ/m ²	ISO 180/1U
Multiaxial Impact	6	J	ISO 6603
Izod Impact, notched, 23°C	101	J/m	ASTM D256
Izod Impact, unnotched, 23°C	955	J/m	ASTM D4812
Instrumented Dart Impact Energy @ peak, 23°C	17	J	ASTM D3763
THERMAL ⁽¹⁾			
HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm	201	°C	ISO 75/Bf

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CHEMISTRY THAT MATTERS[™]

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	182	°C	ISO 75 /Af
CTE, -40°C to 40°C, flow	4.0E-05	1 / °C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.19E-04	1 / °C	ISO 11359-2
HDT, 0.45 MPa, 3.2 mm, unannealed	202	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	185	°C	ASTM D648
CTE, -40°C to 40°C, flow	3.96E-05	1 / °C	ASTM E831
CTE, -40°C to 40°C, xflow	1.19E-04	1 / °C	ASTM E831
PHYSICAL ⁽¹⁾			
Density	1.39	g/cm ³	ISO 1183
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.28	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.82	%	ISO 294
Density	1.39	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	5.1	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.2 – 0.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.7 – 0.9	%	ASTM D955
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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