LNP™ STAT-LOY™ COMPOUND A3000

STAT-LOY A

DESCRIPTION

LNP STAT-LOY A3000 compound is based on Acrylonitrile Butadiene Styrene (ABS) resin containing proprietary fillers. Added features of this grade include: Permanently Anti-Static.

GENERAL INFORMATION	
Features	Antistatic, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Acrylonitrile Butadiene Styrene (ABS)
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	39	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	36	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	3.1	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	6	%	ASTM D638
Tensile Modulus, 5 mm/min	2060	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	65	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2090	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	38	MPa	ISO 527
Tensile Stress, break, 5 mm/min	31	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3	%	ISO 527
Tensile Strain, break, 5 mm/min	24.2	%	ISO 527
Tensile Modulus, 1 mm/min	2010	MPa	ISO 527
Flexural Strength, 2 mm/min	59	MPa	ISO 178
Flexural Modulus, 2 mm/min	1980	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, notched, 23°C	282	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	32	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	20	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	88	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	76	°C	ASTM D648
CTE, -40°C to 40°C, flow	9.34E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.01E-04	1/°C	ASTM E831
CTE, 23°C to 60°C, flow	9.34E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.01E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	91	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	76	°C	ISO 75/Af
Relative Temp Index, Elec (2)	60	°C	UL 746B
Relative Temp Index, Mech w/impact (2)	60	°C	UL 746B
Relative Temp Index, Mech w/o impact (2)	60	°C	UL 746B
PHYSICAL (1)			
Density	1.065	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	1.08	%	ASTM D570
Melt Flow Rate, 230°C/5 kgf	19	g/10 min	ASTM D1238
Mold Shrinkage, flow, 24 hrs (3)	0.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (3)	0.5	%	ASTM D955
Density	1.06	g/cm³	ISO 1183
Mold Shrinkage, flow, 24 hrs (3)	0.41	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (3)	0.49	%	ISO 294
ELECTRICAL (1)			
Surface Resistivity	1.E+09 – 1.E+11	Ω	ASTM D257
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	E207780-101343872	-	-
UL Yellow Card Link 2	E121562-101282713	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING (4)			
Drying Temperature	70 – 80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05 – 0.1	%	
Melt Temperature	200 – 210	°C	
Front - Zone 3 Temperature	205 – 215	°C	
Middle - Zone 2 Temperature	195 – 205	°C	
Rear - Zone 1 Temperature	180 – 195	°C	
Mold Temperature	10 – 50	°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.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

DISCLAIMER