LNP™ STAT-LOY™ COMPOUND A3000XXP

A

DESCRIPTION

LNP STAT-LOY A3000XXP 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 Modulus, 1 mm/min	1800	MPa	ISO 527
Tensile Stress, yield, 50 mm/min	40	MPa	ISO 527
Tensile Stress, break, 50 mm/min	27	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3.6	%	ISO 527
Tensile Nominal Strain, break, 50 mm/min	17.9	%	ISO 527
Flexural Modulus, 2 mm/min	1800	MPa	ISO 178
Flexural Strength, 2 mm/min	56	MPa	ISO 178
Tensile Modulus, 50 mm/min	1900	MPa	ASTM D638
Tensile Stress, yld, Type I, 50 mm/min	40	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	27	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	3.7	%	ASTM D638
Tensile Nominal Strain, brk, Type I, 50 mm/min	14.6	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	1900	MPa	ASTM D790
Flexural Strength, 1.3 mm/min, 50 mm span	59	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched, 23°C	91	J/m	ASTM D256
Izod Impact, unnotched, 23°C	1066	J/m	ASTM D4812
Izod Impact, unnotched 80*10*4 +23°C	135	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	12	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	90	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	75	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/50	94	°C	ISO 306
Vicat Softening Temp, Rate B/120	95	°C	ISO 306
CTE, 23°C to 60°C, flow	1.0E-04	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.1E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	92	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	81	°C	ISO 75/Af
PHYSICAL (1)			
Density	1.08	g/cm³	ISO 1183
Mold Shrinkage, flow (2)	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 230°C/5 kgf	19	g/10 min	ASTM D1238
Mold Shrinkage, xflow (2)	0.6 – 0.8	%	SABIC method
Moisture Absorption, (23°C/50% RH/Equilibrium)	0.5	%	ISO 62-4
Moisture Absorption, (23°C/50% RH/24hrs)	0.2	%	ISO 62-4
ELECTRICAL (1)			
Surface Resistivity (3)	1.E+10 – 1.E+12	Ω	ASTM D257
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) 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.

DISCLAIMER