LNP™ STAT-LOY™ COMPOUND A30009

A-FR

REGION AMERICAS

DESCRIPTION

LNP STAT-LOY A30009 compound is based on Acrylonitrile Butadiene Styrene (ABS) resin containing proprietary fillers. Added features of this grade include: Permanently Anti-Static, Flame Retardant.

GENERAL INFORMATION	
Features	Flame Retardant, Antistatic
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 20241028

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	32	MPa	ASTM D638
Tensile Stress, break	24	MPa	ASTM D638
Tensile Strain, yield	3.8	%	ASTM D638
Tensile Strain, break	35.8	%	ASTM D638
Tensile Modulus, 50 mm/min	2060	MPa	ASTM D638
Flexural Stress	41	MPa	ASTM D790
Flexural Modulus	2060	MPa	ASTM D790
Tensile Stress, yield	32	MPa	ISO 527
Tensile Stress, break	28	MPa	ISO 527
Tensile Strain, yield	3.5	%	ISO 527
Tensile Strain, break	15.2	%	ISO 527
Tensile Modulus, 1 mm/min	1720	MPa	ISO 527
Flexural Stress	47	MPa	ISO 178
Flexural Modulus	2000	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	1698	J/m	ASTM D4812
Izod Impact, notched, 23°C	133	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	14	J	ASTM D3763
Multiaxial Impact	4	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	141	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	11	kJ/m²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	95	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	81	°C	ASTM D648
CTE, -40°C to 40°C, flow	9.54E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.15E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	9.50E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.14E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	94	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	81	°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	1.21	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	2.3	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [3]	0.7 – 0.9	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	0.8 – 1	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [3]	0.79	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [3]	0.88	%	ISO 294
Density	1.21	g/cm³	ISO 1183
ELECTRICAL [1]			
Surface Resistivity [4]	1.E+09 – 1.E+11	Ω	ASTM D257
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 2	1.5	mm	UL 746A
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-101344712	-	-
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING [5]			
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) Measurement meets requirements as specified in ASTM D4496.

(5) 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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