

# LNPTM STAT-LOY™ COMPOUND AX11421

## DESCRIPTION

LNP STAT-LOY AX11421 compound is based on Acrylonitrile Butadiene Styrene (ABS) resin containing proprietary fillers. Added features of this grade include: Permanently Anti-Static.

GENERAL INFORMATION	
Features	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 20240711

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, yld, Type I, 5 mm/min	30	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	21	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	4.7	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	48	%	ASTM D638
Tensile Modulus, 5 mm/min	1410	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	44	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	1350	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	30	MPa	ISO 527
Tensile Stress, break, 5 mm/min	21	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4.4	%	ISO 527
Tensile Strain, break, 5 mm/min	81	%	ISO 527
Tensile Modulus, 1 mm/min	1310	MPa	ISO 527
Flexural Strength, 2 mm/min	44	MPa	ISO 178
Flexural Modulus, 2 mm/min	1330	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, notched, 23°C	425	J/m	ASTM D256
Multiaxial Impact	20	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	29	J	ASTM D3763
Izod Impact, unnotched 80°10°4 +23°C	NB	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	39	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL <sup>(1)</sup></b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	86	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	69	°C	ASTM D648
CTE, -30°C to 30°C, flow	1.13E-04	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	1.26E-04	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	85	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	67	°C	ISO 75/Af
Relative Temp Index, Elec <sup>(2)</sup>	60	°C	UL 746B
Relative Temp Index, Mech w/impact <sup>(2)</sup>	60	°C	UL 746B
Relative Temp Index, Mech w/o impact <sup>(2)</sup>	60	°C	UL 746B
<b>PHYSICAL <sup>(1)</sup></b>			
Specific Gravity	1.05	-	ASTM D792
Density	1.05	g/cm <sup>3</sup>	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	2	%	ASTM D570
Mold Shrinkage, flow, 24 hrs <sup>(3)</sup>	0.5 – 0.7	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(3)</sup>	0.7 – 0.9	%	ASTM D955
Mold Shrinkage, flow, 24 hrs <sup>(3)</sup>	0.5 – 0.7	%	ISO 294
Mold Shrinkage, xflow, 24 hrs <sup>(3)</sup>	0.7 – 0.9	%	ISO 294
Moisture Absorption (23°C / 50% RH)	3.7	%	ISO 62
<b>ELECTRICAL <sup>(1)</sup></b>			
Surface Resistivity <sup>(4)</sup>	1.E+07 – 1.E+09	Ω	ASTM D257
<b>FLAME CHARACTERISTICS <sup>(2)</sup></b>			
UL Yellow Card Link	<a href="#">E121562-101132078</a>	-	-
UL Recognized, 94HB Flame Class Rating	≥1.5	mm	UL 94
<b>INJECTION MOLDING <sup>(5)</sup></b>			
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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