

LNPTM STAT-LOYTM COMPOUND A3000TXB

A3000TXB

DESCRIPTION

LNP STAT-LOY A3000TXB compound is based on Acrylonitrile Butadiene Styrene (ABS) resin containing proprietary fillers. Added features of this grade include: Permanently Anti-Static, Transparent, Bio-assessed to ISO 10993, Besides healthcare, this material is also targeted for food contact applications (excluding Europe).

GENERAL INFORMATION	
Features	Antistatic, Transparent/Translucent, Biocompatibility-ISO10993, Healthcare/Formula lock, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Acrylonitrile Butadiene Styrene (ABS)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Water Management
Consumer	Home Appliances
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Packaging	Industrial Packaging, Food & Beverage

TYPICAL PROPERTY VALUES

Revision 20241028

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 5 mm/min	38	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	27	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	4	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	31	%	ASTM D638
Tensile Modulus, 5 mm/min	1660	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	54	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	1630	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	37	MPa	ISO 527
Tensile Stress, break, 5 mm/min	26	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4	%	ISO 527
Tensile Strain, break, 5 mm/min	29	%	ISO 527
Tensile Modulus, 1 mm/min	1550	MPa	ISO 527
Flexural Stress	49	MPa	ISO 178
Flexural Modulus, 2 mm/min	1490	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	131	J/m	ASTM D256
Multiaxial Impact	33	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	20	J	ASTM D3763
Izod Impact, notched 80*10*4 +23°C	14	kJ/m ²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	78	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	66	°C	ASTM D648
CTE, -30°C to 30°C, flow	1.E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	1.09E-04	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	77	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	66	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Specific Gravity	1.09	-	ASTM D792
Density	1.08	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.54	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.4 – 0.6	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.6 – 0.8	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.81	%	ISO 62
ELECTRICAL ⁽¹⁾			
Volume Resistivity ⁽³⁾	1.E+10 – 1.E+12	Ω.cm	ASTM D257
Surface Resistivity ⁽³⁾	1.E+09 – 1.E+11	Ω	ASTM D257
Static Decay, 5000V to <50V	<1	Seconds	FTMS101B
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.

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