

LNPTM STAT-LOYTM COMPOUND W3000XXJ

W3000XXJ

DESCRIPTION

LNP STAT-LOY W3000XXJ compound is based on Polybutylene Terephthalate (PBT) resin containing proprietary fillers. Added features of this grade include: Permanently Anti-Static, Colorable, Healthcare, Low Extractables, Food Contact compliant.

GENERAL INFORMATION	
Features	Antistatic, Food contact, Healthcare / Formula lock, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polybutylene Terephthalate (PBT)
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 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, brk, Type I, 5 mm/min	41	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	4.3	%	ASTM D638
Tensile Modulus, 50 mm/min	1930	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	1940	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	42	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	8.5	%	ISO 527
Tensile Strain, break, 5 mm/min	9.6	%	ISO 527
Tensile Modulus, 1 mm/min	1880	MPa	ISO 527
Flexural Stress	61	MPa	ISO 178
Flexural Modulus, 2 mm/min	1890	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	1400	J/m	ASTM D4812
Izod Impact, notched, 23°C	61	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	3	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	89	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	157	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	55	°C	ASTM D648
CTE, -30°C to 30°C, flow	1.15E-04	1 /°C	ASTM D696

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -30°C to 30°C, xflow	1.28E-04	1 / °C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	139	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	54	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Specific Gravity	1.27	-	ASTM D792
Density	1.27	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.23	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	2 – 4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	2 – 4	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.37	%	ISO 62
ELECTRICAL ⁽¹⁾			
Surface Resistivity ⁽³⁾	1.E+11 – 1.E+13	Ω	ASTM D257
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	110	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	220 – 230	°C	
Front - Zone 3 Temperature	220 – 230	°C	
Middle - Zone 2 Temperature	215 – 225	°C	
Rear - Zone 1 Temperature	205 – 215	°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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