

LNPTM STAT-KON™ COMPOUND EX01407C

PDX-E-01407 CCS

DESCRIPTION

LNP STAT-KON EX01407C compound is based on Polyetherimide (PEI) resin containing carbon fiber and PTFE. Added features of this grade include: LNP Clean Compounding Technology, Electrically Conductive.

GENERAL INFORMATION

Features	Electrically Conductive, Wear resistant, Low ionics/Outgassing/Liquid particle count, Carbon fiber filled, High stiffness/Strength, High temperature resistance
Fillers	Carbon Fiber, PTFE
Polymer Types	Polyetherimide (PEI)
Processing Techniques	Injection Molding

INDUSTRY

Electrical and Electronics
Industrial

SUB INDUSTRY

Electronic Components, Mobile Phone - Computer - Tablets
Electrical, Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, brk, Type I, 5 mm/min	88	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2	%	ASTM D638
Tensile Modulus, 5 mm/min	11220	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	140	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	8950	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	89	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2	%	ISO 527
Tensile Modulus, 1 mm/min	10320	MPa	ISO 527
Flexural Stress	147	MPa	ISO 178
Flexural Modulus, 2 mm/min	9640	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	273	J/m	ASTM D4812
Izod Impact, notched, 23°C	58	J/m	ASTM D256
Multiaxial Impact	3	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	15	J	ASTM D3763
Izod Impact, unnotched 80°10°4 +23°C	16	kJ/m²	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	214	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	209	°C	ASTM D648
CTE, -30°C to 30°C, flow	1.4E-05	1/°C	ASTM D696

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -30°C to 30°C, xflow	3.8E-05	1 / °C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	216	°C	ISO 75 /Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	209	°C	ISO 75 /Af
PHYSICAL ⁽¹⁾			
Specific Gravity	1.4	-	ASTM D792
Density	1.399	g / cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.13	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.55	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.77	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
ELECTRICAL ⁽¹⁾			
Surface Resistivity ⁽³⁾	1.E+02 – 1.E+06	Ω	ASTM D257
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	360 – 375	°C	
Rear - Zone 1 Temperature	355 – 365	°C	
Middle - Zone 2 Temperature	360 – 370	°C	
Front - Zone 3 Temperature	365 – 375	°C	
Nozzle Temperature	365 – 375	°C	
Mold Temperature	140 – 180	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw speed (Circumferential speed)	0.2 – 0.3	m/s	
Vent Depth	0.025 – 0.076	mm	

(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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