

# LNPTM STAT-KONTM COMPOUND LX04420C

PDX-L-04420 CCS

## DESCRIPTION

LNP STAT-KON LX04420C compound is based on Polyetheretherketone (PEEK) resin containing carbon fiber. Added features of this grade include: LNP Clean Compounding Technology, Electrically Conductive, Dimensional Stability.

GENERAL INFORMATION	
Features	Electrically Conductive, Low ionics/Outgassing/Liquid particle count, Carbon fiber filled, Dimensional stability, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Carbon Fiber
Polymer Types	Polyetheretherketone (PEEK)
Processing Techniques	Injection Molding
INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components, Mobile Phone - Computer - Tablets
Industrial	Electrical, Material Handling

## TYPICAL PROPERTY VALUES

Revision 20241028

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, yield	149	MPa	ASTM D638
Tensile Stress, break	149	MPa	ASTM D638
Tensile Strain, yield	2.3	%	ASTM D638
Tensile Strain, break	2.3	%	ASTM D638
Tensile Modulus, 50 mm/min	11990	MPa	ASTM D638
Flexural Stress	241	MPa	ASTM D790
Flexural Modulus	10790	MPa	ASTM D790
Tensile Stress, yield	149	MPa	ISO 527
Tensile Stress, break	149	MPa	ISO 527
Tensile Strain, yield	2.1	%	ISO 527
Tensile Strain, break	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	11500	MPa	ISO 527
Flexural Stress	241	MPa	ISO 178
Flexural Modulus	10270	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	576	J/m	ASTM D4812
Izod Impact, notched, 23°C	48	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	2	J	ASTM D3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	212	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	13	kJ/m <sup>2</sup>	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>THERMAL</b> <sup>(1)</sup>			
HDT, 1.82 MPa, 3.2mm, unannealed	300	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.62E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	3.96E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	1.63E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.12E-05	1/°C	ISO 11359-2
<b>PHYSICAL</b> <sup>(1)</sup>			
Density	1.36	g/cm <sup>3</sup>	ASTM D792
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	0.6	%	ASTM D955
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	0.34	%	ISO 294
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	0.62	%	ISO 294
Density	1.36	g/cm <sup>3</sup>	ISO 1183
<b>ELECTRICAL</b> <sup>(1)</sup>			
Volume Resistivity <sup>(3)</sup>	1.E+06 – 1.E+08	Ω.cm	ASTM D257
Surface Resistivity <sup>(3)</sup>	1.E+06 – 1.E+08	Ω	ASTM D257
<b>INJECTION MOLDING</b> <sup>(4)</sup>			
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Front - Zone 3 Temperature	380 – 400	°C	
Middle - Zone 2 Temperature	380 – 400	°C	
Rear - Zone 1 Temperature	370 – 380	°C	
Mold Temperature	175 – 190	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	60 – 100	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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