

# LNPTM STAT-KONTM COMPOUND EE004

EC-1004

## DESCRIPTION

LNP STAT-KON EE004 compound is based on Polyetherimide (PEI) resin containing 20% carbon fiber. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Carbon fiber filled, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Carbon Fiber
Polymer Types	Polyetherimide (PEI)
Processing Techniques	Injection Molding
INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Material Handling

## TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, break	170	MPa	ASTM D638
Tensile Strain, break	2	%	ASTM D638
Flexural Stress	259	MPa	ASTM D790
Flexural Modulus	12330	MPa	ASTM D790
Tensile Modulus, 1 mm/min	14800	MPa	ISO 527
Tensile Stress, break, 5 mm/min	195	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.7	%	ISO 527
Flexural Modulus, 2 mm/min	12300	MPa	ISO 178
Flexural Strength, 2 mm/min	264	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	534	J/m	ASTM D4812
Izod Impact, notched, 23°C	58	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	30	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL <sup>(1)</sup></b>			
HDT, 1.82 MPa, 3.2mm, unannealed	212	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	212	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	217	°C	ISO 75/Bf
CTE, -40°C to 40°C, flow	1.E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, flow	1.E-05	1/°C	ISO 11359-2

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, 23°C to 60°C, xflow	4.7E-05	1/°C	ISO 11359-2
Relative Temp Index, Elec <sup>(2)</sup>	105	°C	UL 746B
Relative Temp Index, Mech w/impact <sup>(2)</sup>	105	°C	UL 746B
Relative Temp Index, Mech w/o impact <sup>(2)</sup>	105	°C	UL 746B
<b>PHYSICAL <sup>(1)</sup></b>			
Density	1.34	g/cm <sup>3</sup>	ASTM D792
Mold Shrinkage, flow, 24 hrs <sup>(3)</sup>	0.1 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(3)</sup>	0.3 – 0.5	%	ASTM D955
Mold Shrinkage, flow, 24 hrs <sup>(3)</sup>	0.1 – 0.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs <sup>(3)</sup>	0.3 – 0.5	%	ISO 294
Density	1.34	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
<b>ELECTRICAL <sup>(1)</sup></b>			
Volume Resistivity <sup>(4)</sup>	1.E+02 – 1.E+06	Ω.cm	ASTM D257
Surface Resistivity <sup>(4)</sup>	1.E+02 – 1.E+06	Ω	ASTM D257
<b>FLAME CHARACTERISTICS <sup>(2)</sup></b>			
UL Yellow Card Link	<a href="#">E121562-101344695</a>	-	-
UL Yellow Card Link 2	<a href="#">E45329-101282613</a>	-	-
UL Recognized, 94V-0 Flame Class Rating	0.5	mm	UL 94
<b>INJECTION MOLDING <sup>(5)</sup></b>			
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	360 – 400	°C	
Rear - Zone 1 Temperature	360 – 380	°C	
Middle - Zone 2 Temperature	370 – 390	°C	
Front - Zone 3 Temperature	380 – 400	°C	
Nozzle Temperature	390 – 400	°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) 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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