LNP™ STAT-KON™ COMPOUND EX12310C

DESCRIPTION

LNP STAT-KON EX12310C is an Electrical Conductive thermoplastic compound featuring Electrostatic Discharge (ESD) Safe performance based on a unique Ultra Clean Polyetherimide resin reinforced with 10% carbon fiber. This compound provides good stiffness, dimension stability and has extremely high level of cleanliness for the most demanding applications in the Hard Disk Drive and Semiconductor Industry. A unique feature of this material is its low C18-C40 hydrocarbons and this compound is manufactured using the LNP Clean Compounding Solution (CCS) Technology.

TYPICAL PROPERTY VALUES

Revision 20191216

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	158	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.4	%	ASTM D 638
Tensile Modulus, 5 mm/min	9170	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	224	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	8140	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	156	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.3	%	ISO 527
Tensile Modulus, 1 mm/min	8970	MPa	ISO 527
Flexural Stress, break, 2 mm/min	225	MPa	ISO 178
Flexural Modulus, 2 mm/min	8410	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	32	J/m	ASTM D 256
Charpy Impact, notched, 23°C, 80*10*4mm, Cut	3	kJ/m²	ISO 179/1eA
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	197	°C	ASTM D 648
CTE, 40°C to 120°C, flow	1.56E-05	1/°C	ASTM E 831
CTE, 40°C to 120°C, xflow	6.25E-05	1/°C	ASTM E 831
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	201	°C	ISO 75/Af
Relative Temp Index, Elec (1)	105	°C	UL 746B
Relative Temp Index, Mech w/impact (1)	105	°C	UL 746B
Relative Temp Index, Mech w/o impact (1)	105	°C	UL 746B
PHYSICAL			
Water Absorption, 24 hours	0.25	%	ASTM D 570
Water Absorption, equilibrium, 23C	1.25	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.2 – 0.4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.5 – 0.7	%	ASTM D 955
Melt Flow Rate, 367°C/6.6 kgf	31	g/10 min	ASTM D 1238
Density (Molded)	1.31	g/cm³	ISO 1183
ELECTRICAL			
Volume Resistivity	5.08E+05	Ohm-cm	ASTM D 257
Surface Resistivity	3.97E+05	Ohm	ASTM D 257
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E207780-101997197	-	-

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
UL Recognized, 94V-0 Flame Class Rating	≥0.4	mm	UL 94
INJECTION MOLDING			
Drying Temperature	150	°C	
Drying Time	4 – 6	hrs	
Drying Time (Cumulative)	24	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	350 – 380	°C	
Nozzle Temperature	345 – 380	°C	
Front - Zone 3 Temperature	345 – 380	°C	
Middle - Zone 2 Temperature	340 – 380	°C	
Rear - Zone 1 Temperature	330 – 380	°C	
Mold Temperature	135 – 165	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.076	mm	

(1) 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.

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