LNP™ STAT-KON™ COMPOUND DX13320C

DESCRIPTION

LNPTM Stat-KonTM DX13320C is an electrical conductive thermoplastic compound featuring electrostatic discharge (ESD) safe performance based on a unique Ultra Clean Polycarbonate (PC) resin reinforced with 20% 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	152	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2	%	ASTM D 638
Tensile Modulus, 5 mm/min	15170	MPa	ASTM D 638
Flexural Stress	209	MPa	ASTM D 790
Flexural Modulus	11500	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	150	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.9	%	ISO 527
Tensile Modulus, 1 mm/min	14590	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	187	MPa	ISO 178
Flexural Modulus, 2 mm/min	11600	MPa	ISO 178
IMPACT			
Charpy Impact, unnotched, 23°C	28	kJ/m²	ISO 179/2C
Izod Impact, unnotched, 23°C	410	J/m	ASTM D 4812
Izod Impact, notched, 23°C	70	J/m	ASTM D 256
Charpy Impact, notched, 23°C	7	kJ/m²	ISO 179/2C
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	117	°C	ASTM D 648
CTE, -40°C to 40°C, flow	9.2E-06	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.97E-05	1/°C	ASTM E 831
Relative Temp Index, Elec [1]	80	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	80	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	80	°C	UL 746B
PHYSICAL			
Specific Gravity	1.26	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.1 – 0.2	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.2 – 0.4	%	SABIC method
Melt Volume Rate, MVR at 300°C/5.0 kg	34	cm³/10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	5000 – 500000	Ohm-cm	ASTM D 257
Surface Resistivity	5.E+03 – 5.E+05	Ohm	ASTM D 257
FLAME CHARACTERISTICS [1]			
UL Yellow Card Link	E207780-101977560	-	-
UL Recognized, 94HB Flame Class Rating	≥1	mm	UL 94

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
INJECTION MOLDING			
Drying Temperature	90 – 110	°C	
Drying Time	3 – 5	hrs	
Melt Temperature	280 – 320	°C	
Nozzle Temperature	280 – 320	°C	
Front - Zone 3 Temperature	280 – 320	°C	
Middle - Zone 2 Temperature	280 – 320	°C	
Rear - Zone 1 Temperature	250 – 280	°C	
Mold Temperature	90 – 120	°C	
Back Pressure	1 – 5	MPa	
Screw Speed	30 – 100	rpm	

(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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