LNP™ STAT-KON™ COMPOUND UC1200

REGION AMERICAS

DESCRIPTION

LNP™ STAT-KON™ UC1200 is a 12% carbon fiber reinforced PEI. High modulus with ESD characteristics for high-heat applications.

TYPICAL PROPERTY VALUES

Revision 20190102

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	131	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	131	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	5.1	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	5.1	%	ASTM D 638
Tensile Modulus, 5 mm/min	8130	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	221	MPa	ASTM D 790
Flexural Stress, brk, 2.6 mm/min, 100 mm span	193	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	7830	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	8270	MPa	ASTM D 790
IMPACT			
Izod Impact, unnotched, 23°C	416	J/m	ASTM D 4812
Izod Impact, notched, 23°C	37	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	6	J	ASTM D 3763
THERMAL			
Vicat Softening Temp, Rate B/50	214	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	213	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	208	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	210	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.44E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	3.24E-05	1/°C	ASTM E 831
CTE, -20°C to 150°C, flow	1.44E-05	1/°C	ASTM E 831
CTE, -20°C to 150°C, xflow	3.96E-05	1/°C	ASTM E 831
Relative Temp Index, Elec	105	°C	UL 746B
Relative Temp Index, Mech w/impact	105	°C	UL 746B
Relative Temp Index, Mech w/o impact	105	°C	UL 746B
PHYSICAL			
Specific Gravity	1.32	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.12 – 0.22	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.3 – 0.5	%	SABIC method
Melt Flow Rate, 337°C/6.6 kgf	7.5	g/10 min	ASTM D 1238
ELECTRICAL			
Volume Resistivity	4.E+02	Ohm-cm	ASTM D 257
Surface Resistivity	2.E+05	Ohm	ASTM D 257
Hot Wire Ignition (PLC)	2	PLC Code	UL 746A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
High Ampere Arc Ign, surface {PLC}	2	PLC Code	UL 746A
Static Decay, 5000V to <50V	0.01	< seconds	FTMS101B
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating	1.57	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	380 – 425	°C	
Nozzle Temperature	375 – 420	°C	
Front - Zone 3 Temperature	380 – 425	°C	
Middle - Zone 2 Temperature	370 – 420	°C	
Rear - Zone 1 Temperature	360 – 405	°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	

DISCLAIMER