

LNP™ STAT-KON™ Ultem_UC1200 compound

Polyether Imide

SABIC Innovative Plastics

Message:

LNP STAT-KON ULTEM_UC1200 compound is a 12% carbon fiber reinforced PEI. High modulus with ESD characteristics for high-heat applications.

General Information			
Filler / Reinforcement	Carbon fiber reinforced material, 12% filler by weight		
Features	Electrostatic discharge protection		
	Heat resistance, high		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.32	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (337°C/6.6 kg)	7.5	g/10 min	ASTM D1238
Molding Shrinkage			Internal method
Flow: 3.20mm	0.12 - 0.22	%	Internal method
Transverse flow: 3.20mm	0.30 - 0.50	%	Internal method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	8140	MPa	ASTM D638
Tensile Strength ²			ASTM D638
Yield	131	MPa	ASTM D638
Fracture	131	MPa	ASTM D638
Tensile Elongation ³			ASTM D638
Yield	5.1	%	ASTM D638
Fracture	5.1	%	ASTM D638
Flexural Modulus			ASTM D790
100mm span ⁴	8270	MPa	ASTM D790
50.0mm span ⁵	7830	MPa	ASTM D790
Flexural Strength			ASTM D790
Fracture, 50.0mm span ⁶	221	MPa	ASTM D790
Fracture, 100mm span ⁷	193	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	37	J/m	ASTM D256
Unnotched Izod Impact (23°C)	420	J/m	ASTM D4812
Instrumented Dart Impact (23°C, Total Energy)	6.21	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648

0.45 MPa, unannealed, 3.20mm	213	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	209	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	210	°C	ASTM D648
Vicat Softening Temperature	214	°C	ASTM D1525 ⁸
Linear thermal expansion coefficient			ASTM E831
Flow: -40 to 40°C	1.4E-5	cm/cm/°C	ASTM E831
Flow: -20 to 150°C	1.4E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	3.2E-5	cm/cm/°C	ASTM E831
Lateral: -20 to 150°C	4.0E-5	cm/cm/°C	ASTM E831
RTI Elec	105	°C	UL 746
RTI Imp	105	°C	UL 746
RTI	105	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	2.0E+5	ohms	ASTM D257
Volume Resistivity	4.0E+2	ohms · cm	ASTM D257
High Amp Arc Ignition (HAI)	PLC 2		UL 746
Hot-wire Ignition (HWI)	PLC 2		UL 746
Static Decay ⁹	10	msec	FTMS 101B
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.57 mm)	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	149	°C	
Drying Time	4.0 - 6.0	hr	
Drying Time, Maximum	24	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 60	%	
Rear Temperature	360 - 404	°C	
Middle Temperature	371 - 421	°C	
Front Temperature	382 - 427	°C	
Nozzle Temperature	377 - 421	°C	
Processing (Melt) Temp	382 - 427	°C	
Mold Temperature	135 - 163	°C	
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	40 - 70	rpm	
Vent Depth	0.025 - 0.076	mm	
NOTE			
1.	5.0 mm/min		
2.	Type 1, 5.0 mm/min		
3.	Type 1, 5.0 mm/min		
4.	2.6 mm/min		
5.	1.3 mm/min		
6.	1.3 mm/min		

7.	2.6 mm/min
8.	标准 B (120°C/h), 载荷2 (50N)
9.	5000V to <50V

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