

LNP* Stat-kon* Ultem_UC1200 is a 12% carbon fiber reinforced PEI. High modulus with ESD characteristics for high-heat applications.

Property

TYPICAL PROPERTIES ⁽¹⁾			
	Value	Unit	Standard
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
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 (3)	1.57	mm	UL 94

Parameter	Value	Unit
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

Source GMD, last updated:06/27/2000

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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