

LNPT[™] STAT-KON[™] COMPOUND UC1200

DESCRIPTION

LNP STAT-KON UC1200 compound is based on Polyetherimide (PEI) resin containing 12% carbon fiber. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION

Features	Electrically Conductive, Carbon fiber filled, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Carbon Fiber
Polymer Types	Polyetherimide (PEI)
Processing Techniques	Injection Molding

INDUSTRY

Electrical and Electronics
Industrial

SUB INDUSTRY

Electronic Components
Material Handling

TYPICAL PROPERTY VALUES

Revision 20230607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 5 mm/min	131	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	131	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	5.1	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	5.1	%	ASTM D638
Tensile Modulus, 5 mm/min	8130	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	221	MPa	ASTM D790
Flexural Stress, brk, 2.6 mm/min, 100 mm span	193	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	7830	MPa	ASTM D790
Flexural Modulus, 2.6 mm/min, 100 mm span	8270	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	416	J/m	ASTM D4812
Izod Impact, notched, 23°C	37	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	6	J	ASTM D3763
THERMAL ⁽¹⁾			
Vicat Softening Temp, Rate B/50	214	°C	ASTM D1525
HDT, 0.45 MPa, 3.2 mm, unannealed	213	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	208	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	210	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.44E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	3.24E-05	1/°C	ASTM E831
CTE, -20°C to 150°C, flow	1.44E-05	1/°C	ASTM E831
CTE, -20°C to 150°C, xflow	3.96E-05	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Relative Temp Index, Elec ⁽²⁾	105	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	105	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	105	°C	UL 746B
PHYSICAL ⁽¹⁾			
Specific Gravity	1.32	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm ⁽³⁾	0.12 – 0.22	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm ⁽³⁾	0.3 – 0.5	%	SABIC method
Melt Flow Rate, 337°C/6.6 kgf	7.5	g/10 min	ASTM D1238
ELECTRICAL ⁽¹⁾			
Volume Resistivity ⁽⁴⁾	4.E+02	Ω.cm	ASTM D257
Surface Resistivity ⁽⁴⁾	2.E+05	Ω	ASTM D257
Static Decay, 5000V to <50V	<0.01	Seconds	FTMS101B
Hot-Wire Ignition (HWI), PLC 2	≥3	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 3	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 2	≥1.5	mm	UL 746A
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	E121562-221123	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.5	mm	UL 94
INJECTION MOLDING ⁽⁵⁾			
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	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) 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.

(3) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(4) Measurement meets requirements as specified in ASTM D4496.

(5) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.



MORE INFORMATION

For curve data and CAE cards, please visit and register at <https://materialfinder.sabic-specialties.com>

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