LNP™ STAT-KON™ COMPOUND EX12310C

DESCRIPTION

LNP STAT-KON EX12310C compound is based on Polyetherimide (PEI) resin containing 10% carbon fiber. Added features of this grade include: LNP Clean Compounding Technology, Low C18-C40 Hydrocarbons, Electrically Conductive, Dimensional Stability.

GENERAL INFORMATION	
Features	Electrically Conductive, Low ionics/Outgassing/Liquid particle count, Carbon fiber filled, Dimensional stability, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Carbon Fiber
Polymer Types	Polyetherimide (PEI)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components, Mobile Phone - Computer - Tablets
Industrial	Electrical, Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	158	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.4	%	ASTM D638
Tensile Modulus, 5 mm/min	9170	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	224	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	8140	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	156	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.3	%	ISO 527
Tensile Modulus, 1 mm/min	8970	MPa	ISO 527
Flexural Stress, break, 2 mm/min	225	MPa	ISO 178
Flexural Modulus, 2 mm/min	8410	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	32	J/m	ASTM D256
Charpy Impact, notched, 23°C, 80*10*4mm, Cut	3	kJ/m²	ISO 179/1eA
THERMAL [1]			
HDT, 1.82 MPa, 6.4 mm, unannealed	197	°C	ASTM D648
CTE, 40°C to 120°C, flow	1.56E-05	1/°C	ASTM E831
CTE, 40°C to 120°C, xflow	6.25E-05	1/°C	ASTM E831
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	201	°C	ISO 75/Af
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]			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Water Absorption, (23°C/24hrs)	0.25	%	ASTM D570
Water Absorption, (23°C/Saturated)	1.25	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [3]	0.2 – 0.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	0.5 – 0.7	%	ASTM D955
Melt Flow Rate, 367°C/6.6 kgf	31	g/10 min	ASTM D1238
Density (Molded)	1.31	g/cm³	ISO 1183
ELECTRICAL [1]			
Volume Resistivity [4]	5.08E+05	Ω.cm	ASTM D257
Surface Resistivity [4]	3.97E+05	Ω	ASTM D257
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E207780-101997197	-	-
UL Recognized, 94V-0 Flame Class Rating	≥0.4	mm	UL 94
INJECTION MOLDING [5]			
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	360 – 400	°C	
Rear - Zone 1 Temperature	360 – 380	°C	
Middle - Zone 2 Temperature	370 – 390	°C	
Front - Zone 3 Temperature	380 – 400	°C	
Nozzle Temperature	390 – 400	°C	
Mold Temperature	140 – 180	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw speed (Circumferential speed)	0.2 – 0.3	m/s	
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.

DISCLAIMER