LNP™ STAT-KON™ COMPOUND DX07323

DESCRIPTION

LNP STAT-KON DX07323 compound is based on Polycarbonate (PC) resin containing stainless steel fiber. Added features of this grade include: Electrically Conductive, Impact Modified, meet ATEX requirements.

GENERAL INFORMATION	
Features	Electrically Conductive, Impact resistant
Fillers	Stainless Steel Fiber
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	55	MPa	ASTM D638
Tensile Stress, break	45	MPa	ASTM D638
Tensile Strain, yield	5	%	ASTM D638
Tensile Strain, break	9	%	ASTM D638
Tensile Modulus, 5 mm/min	2400	MPa	ASTM D638
Flexural Stress	84	MPa	ASTM D790
Flexural Modulus	2200	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	55	MPa	ISO 527
Tensile Stress, break, 5 mm/min	44	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	5	%	ISO 527
Tensile Strain, break, 5 mm/min	9	%	ISO 527
Tensile Modulus, 1 mm/min	2400	MPa	ISO 527
Flexural Stress, break, 2 mm/min	88	MPa	ISO 178
Flexural Modulus, 2 mm/min	2400	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	1600	J/m	ASTM D4812
Izod Impact, unnotched, -40°C	1500	J/m	ASTM D4812
Izod Impact, notched, 23°C	180	J/m	ASTM D256
Izod Impact, notched, -40°C	100	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	130	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -40°C	100	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	16	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	10	kJ/m²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	125	°C	ASTM D648
CTE, -40°C to 40°C, flow	5.E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	5.E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	5.E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	124	°C	ISO 75/Af
Relative Temp Index, Elec [2]	80	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	80	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	80	°C	UL 746B
PHYSICAL [1]			
Density	1.26	g/cm³	ASTM D792
Mold Shrinkage, flow [3]	0.5	%	SABIC method
Mold Shrinkage, xflow [3]	0.5	%	SABIC method
Mold Shrinkage, flow, 24 hrs [3]	0.4 – 0.7	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	0.4 – 0.7	%	ASTM D955
Melt Flow Rate, 300°C/10 kgf	55	g/10 min	ASTM D1238
Density	1.26	g/cm³	ISO 1183
Melt Volume Rate, MVR at 300°C/10.0 kg	50	cm³/10 min	ISO 1133
ELECTRICAL [1]			
Volume Resistivity [4]	1.0E+06 – 1.0E+09	Ω.cm	ASTM D257
Surface Resistivity [4]	1.0E+06 – 1.0E+09	Ω	ASTM D257
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E207780-101283809	-	-
UL Recognized, 94V-1 Flame Class Rating	2.5	mm	UL 94
INJECTION MOLDING [5]			
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	48	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	295 – 315	°C	
Nozzle Temperature	290 – 310	°C	
Front - Zone 3 Temperature	295 – 315	°C	
Middle - Zone 2 Temperature	280 – 305	°C	
Rear - Zone 1 Temperature	270 – 295	°C	
Mold Temperature	70 – 95	°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.

DISCLAIMER