LNP™ STAT-KON™ COMPOUND DE003P

DC-1003 EP

DESCRIPTION

LNP STAT-KON* DE003P is a compound based on Polycarbonate resin containing 15% Carbon Fiber. Added features of this material include: Electrically Conductive, Exceptional Processing.

GENERAL INFORMATION	
Features	Electrically Conductive, High Flow, Carbon fiber filled, High stiffness/Strength
Fillers	Carbon 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, break	121	MPa	ASTM D638
Tensile Strain, break	1.7	%	ASTM D638
Tensile Modulus, 50 mm/min	11160	MPa	ASTM D638
Flexural Stress	193	MPa	ASTM D790
Flexural Modulus	9920	MPa	ASTM D790
Tensile Stress, break	110	MPa	ISO 527
Tensile Strain, break	1.4	%	ISO 527
Tensile Modulus, 1 mm/min	9880	MPa	ISO 527
Flexural Stress	184	MPa	ISO 178
Flexural Modulus	9770	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	425	J/m	ASTM D4812
Izod Impact, notched, 23°C	77	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	16	J	ASTM D3763
Multiaxial Impact	3	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	33	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	145	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	142	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.24E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	4.93E-05	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	1.25E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.93E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	145	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	142	°C	ISO 75/Af
PHYSICAL (1)			
Density	1.25	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.15	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (2)	0.1 – 0.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	0.3 – 0.4	%	ASTM D955
Mold Shrinkage, flow, 24 hrs (2)	0.1 – 0.4	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (2)	0.32 – 0.41	%	ISO 294
Moisture Absorption (23°C / 50% RH)	0.4	%	ISO 62
ELECTRICAL (1)			
Surface Resistivity	1.E+02 – 1.E+06	Ω	ASTM D257
INJECTION MOLDING (3)			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

(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) 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.

(3) 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