LNP™ STAT-KON™ COMPOUND DE003ER

DC-1003 EM MR

DESCRIPTION

LNP STAT-KON DE003ER compound is based on Polycarbonate (PC) resin containing 15% carbon fiber. Added features of this grade include: Easy Molding, Mold Release, Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Good Processability, Enhanced mold release, 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	109	MPa	ASTM D638
Tensile Strain, break	2.1	%	ASTM D638
Tensile Modulus, 5 mm/min	8780	MPa	ASTM D638
Flexural Stress	182	MPa	ASTM D790
Flexural Modulus	7790	MPa	ASTM D790
Tensile Stress, break	108	MPa	ISO 527
Tensile Strain, break	2	%	ISO 527
Tensile Modulus, 1 mm/min	8410	MPa	ISO 527
Flexural Stress	176	MPa	ISO 178
Flexural Modulus	8040	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	491	J/m	ASTM D4812
Izod Impact, notched, 23°C	74	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	15	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	6	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	137	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.76E-05	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, xflow	5.E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	1.77E-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	145	°C	ISO 75/Af
PHYSICAL [1]			
Density	1.24	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.16	%	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
Density	1.24	g/cm³	ISO 1183
ELECTRICAL [1]			
Surface Resistivity [3]	1.E+02 – 1.E+05	Ω	ASTM D257
FLAME CHARACTERISTICS [4]			
UL Yellow Card Link	E121562-104563515	-	-
UL Recognized, 94V-1 Flame Class Rating	3	mm	UL 94
UL Recognized, 94HB Flame Class Rating	0.8	mm	UL 94
INJECTION MOLDING [5]			
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) Measurement meets requirements as specified in ASTM D4496.

(4) 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.

(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