LNP™ STAT-KON™ COMPOUND DC10EPFR

DESCRIPTION

LNP STAT-KON DC10EPFR compound is based on Polycarbonate (PC) resin containing 10% carbon fiber. Added features of this grade include: Flame Retardant, Electrically Conductive, Exceptional Processing.

GENERAL INFORMATION	
Features	Flame Retardant, Electrically Conductive, High Flow
Fillers	Carbon Fiber
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	120	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.5	%	ASTM D638
Tensile Modulus, 5 mm/min	7940	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	176	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	173	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	6800	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	118	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.6	%	ISO 527
Tensile Modulus, 1 mm/min	7570	MPa	ISO 527
Flexural Strength, 2 mm/min	169	MPa	ISO 178
Flexural Modulus, 2 mm/min	6800	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	546	J/m	ASTM D4812
Izod Impact, notched, 23°C	59	J/m	ASTM D256
Multiaxial Impact	4	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	23	J	ASTM D3763
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	141	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	138	°C	ASTM D648
CTE, -30°C to 30°C, flow	4.2E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	4.6E-05	1/°C	ASTM D696

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	141	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	137	°C	ISO 75/Af
PHYSICAL [1]			
Specific Gravity	1.25	-	ASTM D792
Density	1.24	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.11	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.1 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.4 – 0.6	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.17	%	ISO 62
ELECTRICAL [1]			
Surface Resistivity [3]	1.E+02 – 1.E+06	Ω	ASTM D257
INJECTION MOLDING [4]			
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) 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