LNP™ STAT-KON™ COMPOUND DX91077

PDX-D-91077

DESCRIPTION

LNP STAT-KON DX91077 compound is based on Polycarbonate (PC) resin containing conductive carbon powder. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive
Fillers	Carbon Powder
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, yld, Type I, 5 mm/min	56	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	45	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	4.8	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	15	%	ASTM D638
Tensile Modulus, 50 mm/min	2710	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	94	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2760	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	55	MPa	ISO 527
Tensile Stress, break, 5 mm/min	48	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4.8	%	ISO 527
Tensile Strain, break, 5 mm/min	12.4	%	ISO 527
Tensile Modulus, 1 mm/min	2600	MPa	ISO 527
Flexural Stress	84	MPa	ISO 178
Flexural Modulus, 2 mm/min	2580	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	1740	J/m	ASTM D4812
Izod Impact, notched, 23°C	74	J/m	ASTM D256
Multiaxial Impact	28	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	31	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	125	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	11	kJ/m²	ISO 180/1A
THERMAL [1]			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	139	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	130	°C	ASTM D648
CTE, -30°C to 30°C, flow	6.6E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	6.7E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	140	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	127	°C	ISO 75/Af
PHYSICAL (1)			
Specific Gravity	1.23	-	ASTM D792
Density	1.23	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.14	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (2)	0.8 – 1	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	1 – 3	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.24	%	ISO 62
ELECTRICAL (1)			
Surface Resistivity (3)	1.E+04 – 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