LNP™ STAT-KON™ COMPOUND FD000

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DESCRIPTION

LNP STAT-KON FD000 compound is based on Polyethylene (PE) resin containing conductive carbon powder. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, No PFAS intentionally added
Fillers	Carbon Powder
Polymer Types	Polyethylene, Unspecified (PE, Unspecified)
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	33	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	32	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	6.1	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	9	%	ASTM D638
Tensile Modulus, 50 mm/min	2220	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	1300	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	32	MPa	ISO 527
Tensile Stress, break, 5 mm/min	31	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	5.5	%	ISO 527
Tensile Strain, break, 5 mm/min	6.5	%	ISO 527
Tensile Modulus, 1 mm/min	1400	MPa	ISO 527
Flexural Stress	30	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	890	J/m	ASTM D4812
Izod Impact, notched, 23°C	19	J/m	ASTM D256
Multiaxial Impact	14	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	13	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	53	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	2	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	90	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	51	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -30°C to 30°C, flow	1.1E-04	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	1.1E-04	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	84	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	51	°C	ISO 75/Af
PHYSICAL (1)			
Density	1.05	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.02	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (2)	2 – 3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	1 – 2	%	ASTM D955
Density	1.04	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.02	%	ISO 62
ELECTRICAL (1)			
Surface Resistivity (3)	1.E+01 – 1.E+03	Ω	ASTM D257
INJECTION MOLDING (4)			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Melt Temperature	230	°C	
Front - Zone 3 Temperature	220 – 230	°C	
Middle - Zone 2 Temperature	210 – 220	°C	
Rear - Zone 1 Temperature	195 – 205	°C	
Mold Temperature	40 – 55	°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