LNP™ STAT-KON™ Compound MFD03

MF-15

REGION AMERICAS

DESCRIPTION

LNP STAT-KON MFD03 compound is based on Polypropylene (PP) resin containing conductive carbon powder and 15% glass fiber. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, High stiffness/Strength, No PFAS intentionally added
Fillers	Carbon Powder, Glass Fiber (Total fluorine >50ppm only from inorganic fluorine)
Polymer Types	Polypropylene, Unspecified (PP, 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, yield	34	MPa	ASTM D638
Tensile Stress, break	16	MPa	ASTM D638
Tensile Strain, yield	2.7	%	ASTM D638
Tensile Strain, break	6.9	%	ASTM D638
Tensile Modulus, 50 mm/min	3440	MPa	ASTM D638
Flexural Modulus	2750	MPa	ASTM D790
Tensile Stress, yield	34	MPa	ISO 527
Tensile Stress, break	15	MPa	ISO 527
Tensile Strain, yield	2.6	%	ISO 527
Tensile Strain, break	5.7	%	ISO 527
Tensile Modulus, 1 mm/min	3310	MPa	ISO 527
Flexural Stress	51	MPa	ISO 178
Flexural Modulus	3000	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	138	J/m	ASTM D4812
Izod Impact, notched, 23°C	347	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	13	J	ASTM D3763
Multiaxial Impact	5	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	20	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL [1]			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	147	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	106	°C	ASTM D648
CTE, -40°C to 40°C, flow	4.68E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.04E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	4.70E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.05E-04	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	105	°C	ISO 75/Af
PHYSICAL (1)			
Density	1.07	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs (2)	1	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	0.9	%	ASTM D955
Mold Shrinkage, flow, 24 hrs (2)	1	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (2)	0.92	%	ISO 294
Density	1.07	g/cm³	ISO 1183
ELECTRICAL (1)			
Surface Resistivity (3)	1.E+03 – 1.E+06	Ω	ASTM D257
INJECTION MOLDING (4)			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Melt Temperature	225 – 250	°C	
Front - Zone 3 Temperature	240 – 250	°C	
Middle - Zone 2 Temperature	215 – 225	°C	
Rear - Zone 1 Temperature	195 – 205	°C	
Mold Temperature	30 – 50	°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.

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