LNP™ STAT-KON™ Compound MFD02

MF-10

DESCRIPTION

LNP STAT-KON MFD02 compound is based on Polypropylene (PP) resin containing conductive carbon powder and 10% glass fiber. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, 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	28	MPa	ISO 527
Tensile Stress, break	23	MPa	ISO 527
Tensile Strain, yield	2.9	%	ISO 527
Tensile Strain, break	4.1	%	ISO 527
Tensile Modulus, 1 mm/min	2430	MPa	ISO 527
Flexural Stress	43	MPa	ISO 178
Flexural Modulus	2200	MPa	ISO 178
Tensile Stress, yield	28	MPa	ASTM D638
Tensile Stress, break	20	MPa	ASTM D638
Tensile Strain, yield	3.2	%	ASTM D638
Tensile Strain, break	6.1	%	ASTM D638
Tensile Modulus, 50 mm/min	2750	MPa	ASTM D638
Flexural Modulus	2060	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	15	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	27	kJ/m²	ISO 180/1U
Multiaxial Impact	11	J	ISO 6603
Izod Impact, notched, 23°C	133	J/m	ASTM D256
Izod Impact, unnotched, 23°C	379	J/m	ASTM D4812
Instrumented Dart Impact Energy @ peak, 23°C	16	J	ASTM D3763
THERMAL [1]			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	127	°C	ISO 75/Bf

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	81	°C	ISO 75/Af
CTE, -40°C to 40°C, flow	6.40E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.03E-04	1/°C	ISO 11359-2
HDT, 0.45 MPa, 3.2 mm, unannealed	133	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	85	°C	ASTM D648
CTE, -40°C to 40°C, flow	6.48E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.03E-04	1/°C	ASTM E831
PHYSICAL (1)			
Density	1.05	g/cm³	ISO 1183
Mold Shrinkage, flow, 24 hrs (2)	1.2	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (2)	1.2	%	ISO 294
Density	1.05	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs (2)	1.1 – 1.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	1.1 – 1.3	%	ASTM D955
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	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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