SABIC Innovative Plastics™

LNP* Stat-kon* Compound MFD02

Asia Pacific: COMMERCIAL

Also known as: MF-10
Product Reorder Name: MFD02

LNP* Stat-kon* MFD02 is a compound based on Polypropylene resin containing Glass Fiber, Carbon Powder. Added features of this material include: Electrically Conductive.

Property

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yield	28	MPa	ASTM D 638
Tensile Stress, break	20	MPa	ASTM D 638
Tensile Strain, yield	3.2	%	ASTM D 638
Tensile Strain, break	6.1	%	ASTM D 638
Tensile Modulus, 50 mm/min	2750	MPa	ASTM D 638
Flexural Modulus	2060	MPa	ASTM D 790
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
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	379	J/m	ASTM D 4812
Izod Impact, notched, 23°C	133	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	16	J	ASTM D 3763
Multiaxial Impact	11	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	27	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	15	kJ/m²	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	133	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	85	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.03E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.48E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.03E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.4E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	127	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	81	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Density	1.05	g/cm³	ASTM D 792
Mold Shrinkage, flow, 24 hrs	1.1 - 1.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1.1 - 1.3	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	1.2	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	1.2	%	ISO 294
Density	1.05	g/cm³	ISO 1183

ELECTRICAL	Value	Unit	Standard
Surface Resistivity	1.E+01 - 1.E+03	Ohm	ASTM D 257

Source GMD, last updated:09/24/2008

Processing

Parameter Injection Molding	Value	Unit
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

Source GMD, last updated:09/24/2008

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR (LOCAL SALES OFFICE) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.
(2) Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.