LNP™ STAT-KON™ COMPOUND MD000ISC

M-1 HI

DESCRIPTION

LNP STAT-KON MD000ISC compound is based on Polypropylene (PP) resin containing conductive carbon powder. Added features of this grade include: Electrically Conductive, High Impact, Heat Stabilized.

GENERAL INFORMATION	
Features	Electrically Conductive, Heat Stabilized, Impact resistant, No PFAS intentionally added
Fillers	Carbon Powder
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 20241028

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	21	MPa	ASTM D638
Tensile Stress, break	17	MPa	ASTM D638
Tensile Strain, yield	9	%	ASTM D638
Tensile Strain, break	133.8	%	ASTM D638
Tensile Modulus, 50 mm/min	480	MPa	ASTM D638
Flexural Stress	27	MPa	ASTM D790
Flexural Modulus	1130	MPa	ASTM D790
Tensile Stress, yield	18	MPa	ISO 527
Tensile Stress, break	17	MPa	ISO 527
Tensile Modulus, 1 mm/min	1100	MPa	ISO 527
Flexural Stress	27	MPa	ISO 178
Flexural Modulus	1200	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	1553	J/m	ASTM D4812
Izod Impact, notched, 23°C	833	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	24	J	ASTM D3763
Multiaxial Impact	31	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	112	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	65	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	81	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	52	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	1.01E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.19E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	1.01E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.19E-04	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	56	°C	ISO 75/Af
Relative Temp Index, Elec (2)	65	°C	UL 746B
Relative Temp Index, Mech w/impact (2)	65	°C	UL 746B
Relative Temp Index, Mech w/o impact (2)	65	°C	UL 746B
PHYSICAL (1)			
Density	0.98	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.03	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (3)	1.6 – 1.8	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (3)	1.6 – 1.8	%	ASTM D955
Mold Shrinkage, flow, 24 hrs (3)	1.6 – 1.8	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (3)	1.6 – 1.8	%	ISO 294
Density	0.97	g/cm³	ISO 1183
ELECTRICAL (1)			
Surface Resistivity (4)	1.E+01 – 1.E+06	Ω	ASTM D257
Static Decay, 5000V to <50V	<0.01	Seconds	FTMS101B
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	E121562-101282751	-	-
UL Yellow Card Link 2	E207780-101343866	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING (5)			
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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.
(3) 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.
(4) Measurement meets requirements as specified in ASTM D4496.
(5) 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

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.