LNP™ STAT-KON™ COMPOUND ZE004XXQ

ZC-1004XXQ

DESCRIPTION

LNP STAT-KON ZE004XXQ compound is based on Polyphenylene Ether / Polystyrene (PPE/PS) blend containing 20% carbon fiber. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Carbon fiber filled, High stiffness/Strength, No PFAS intentionally added
Fillers	Carbon Fiber
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
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, brk, Type I, 5 mm/min	62	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1	%	ASTM D638
Tensile Modulus, 5 mm/min	14200	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	102	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	11300	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	60	MPa	ISO 527
Tensile Strain, break, 5 mm/min	0.9	%	ISO 527
Tensile Modulus, 1 mm/min	14500	MPa	ISO 527
Flexural Strength, 2 mm/min	95	MPa	ISO 178
Flexural Modulus, 2 mm/min	11100	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	250	J/m	ASTM D4812
Izod Impact, notched, 23°C	65	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	18	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	139	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	135	°C	ASTM D648
CTE, -40°C to 40°C, flow	9.5E-6	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.5E-5	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	9.5E-6	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.5E-5	1/°C	ISO 11359-2

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	141	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	135	°C	ISO 75/Af
PHYSICAL [1]			
Density	1.5	g/cm³	ISO 1183
Moisture Absorption, (23°C/50% RH/24 hrs)	0.02	%	ASTM D570
Water Absorption, (23°C/24hrs)	0.1	%	ASTM D570
Mold Shrinkage, flow [2]	0.1 – 0.2	%	SABIC method
Mold Shrinkage, xflow [2]	0.2 – 0.4	%	SABIC method
Density	1.5	g/cm³	ASTM D792
ELECTRICAL [1]			
Surface Resistivity [3]	1E02 – 1E06	Ω	ASTM D257
INJECTION MOLDING [4]			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Melt Temperature	300 – 305	°C	
Front - Zone 3 Temperature	300 – 310	°C	
Middle - Zone 2 Temperature	290 – 300	°C	
Rear - Zone 1 Temperature	275 – 290	°C	
Mold Temperature	80 – 110	°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