LNP™ STAT-KON™ COMPOUND DX11408

DX11408

DESCRIPTION

LNP STAT-KON DX11408 compound is based on Polycarbonate (PC) resin containing conductive carbon powder. Added features of this grade include: Electrically Conductive, Improved Ductility, meet ATEX requirements.

GENERAL INFORMATION	
Features	Electrically Conductive, Impact resistant
Fillers	Carbon Powder
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components
Industrial	Material Handling

TYPICAL PROPERTY VALUES

Revision 20241007

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	56	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	48	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	4.7	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	22	%	ASTM D638
Tensile Modulus, 5 mm/min	2590	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2680	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	55	MPa	ISO 527
Tensile Stress, break, 5 mm/min	48	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4.6	%	ISO 527
Tensile Strain, break, 5 mm/min	16	%	ISO 527
Tensile Modulus, 1 mm/min	2630	MPa	ISO 527
Flexural Stress	88	MPa	ISO 178
Flexural Modulus, 2 mm/min	2480	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	940	J/m	ASTM D4812
Izod Impact, notched, 23°C	337	J/m	ASTM D256
Multiaxial Impact	34	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	38	J	ASTM D3763
Izod Impact, notched 80*10*4 +23°C	21	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	137	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	130	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -30°C to 30°C, flow	6.2E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	6.52E-03	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	136	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	127	°C	ISO 75/Af
Relative Temp Index, Mech w/impact (2)	115	°C	UL 746B
Relative Temp Index, Mech w/o impact (2)	115	°C	UL 746B
PHYSICAL (1)			
Specific Gravity	1.25	-	ASTM D792
Density	1.25	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.12	%	ASTM D570
Moisture Absorption (23°C / 50% RH)	0.19	%	ISO 62
Melt Volume Rate, MVR at 300°C/5.0 kg	17	cm³/10 min	ISO 1133
Mold Shrinkage, flow, 24 hrs (3)	0.6 – 1	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (3)	0.9 – 2	%	ASTM D955
ELECTRICAL (1)			
Volume Resistivity (4)	1.E+03 – 1.E+06	Ω.cm	ASTM D257
Surface Resistivity (4)	1.E+03 – 1.E+06	Ω	ASTM D257
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	E121562-101212124	-	-
UL Recognized, 94HB Flame Class Rating	≥0.75	mm	UL 94
UV-light, water exposure/immersion	F1	-	UL 746C
INJECTION MOLDING (5)			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	295 – 305	°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) 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.

MORE INFORMATION

For curve data and CAE cards, please visit and register at https://materialfinder.sabic-specialties.com

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