LNP™ STAT-KON™ COMPOUND DX12411C

DX12411C

DESCRIPTION

LNP STAT-KON DX12411C compound is based on Polycarbonate (PC) resin containing conductive carbon powder. Added features of this grade include: Electrically Conductive, Impact Modified, LNP Clean Compounding Technology.

GENERAL INFORMATION	
Features	Electrically Conductive, Low ionics/Outgassing/Liquid particle count, Impact resistant, No PFAS intentionally added
Fillers	Carbon Powder
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components, Mobile Phone - Computer - Tablets
Industrial	Electrical, Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	55	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	47	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	4.7	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	19	%	ASTM D638
Tensile Modulus, 5 mm/min	2630	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2690	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	54	MPa	ISO 527
Tensile Stress, break, 5 mm/min	47	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4.6	%	ISO 527
Tensile Strain, break, 5 mm/min	12.3	%	ISO 527
Tensile Modulus, 1 mm/min	2560	MPa	ISO 527
Flexural Stress	88	MPa	ISO 178
Flexural Modulus, 2 mm/min	2540	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	296	J/m	ASTM D256
Multiaxial Impact	33	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	34	J	ASTM D3763
Izod Impact, notched 80*10*4 +23°C	18	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	92	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -30°C to 30°C, flow	7.1E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	7.2E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	138	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	107	°C	ISO 75/Af
PHYSICAL (1)			
Specific Gravity	1.25	-	ASTM D792
Density	1.246	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.15	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (2)	0.85	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	1	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.22	%	ISO 62
ELECTRICAL (1)			
Volume Resistivity (3)	1.E+03 – 1.E+06	Ω.cm	ASTM D257
Surface Resistivity (3)	1.E+03 – 1.E+06	Ω	ASTM D257
INJECTION MOLDING (4)			
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) 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