LNP™ STAT-KON™ COMPOUND DX05499

DX-7

DESCRIPTION

LNP STAT-KON DX05499 compound is based on Polycarbonate (PC) resin containing conductive carbon powder. Added features of this grade include: Electrically Conductive, Flame Retardant.

GENERAL INFORMATION	
Features	Flame Retardant, Electrically Conductive, No PFAS intentionally added
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 20240715

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	67	MPa	ASTM D638
Tensile Stress, break	60	MPa	ASTM D638
Tensile Strain, yield	4.6	%	ASTM D638
Tensile Strain, break	8.3	%	ASTM D638
Tensile Modulus, 50 mm/min	2750	MPa	ASTM D638
Flexural Stress	101	MPa	ASTM D790
Flexural Modulus	3230	MPa	ASTM D790
Tensile Stress, yield	64	MPa	ISO 527
Tensile Stress, break	53	MPa	ISO 527
Tensile Strain, yield	4.3	%	ISO 527
Tensile Strain, break	12.6	%	ISO 527
Tensile Modulus, 1 mm/min	2800	MPa	ISO 527
Flexural Stress	108	MPa	ISO 178
Flexural Modulus	3100	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	2354	J/m	ASTM D4812
Izod Impact, notched, 23°C	96	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	25	J	ASTM D3763
Multiaxial Impact	34	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	137	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
THERMAL [1]			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	132	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	120	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	122	°C	ISO 75/Af
Relative Temp Index, Elec [2]	80	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	80	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	80	°C	UL 746B
PHYSICAL [1]			
Density	1.34	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.11	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [3]	0.6	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	0.7	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [3]	0.64	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [3]	0.66	%	ISO 294
Moisture Absorption (23°C / 50% RH)	0.19	%	ISO 62
ELECTRICAL [1]			
Surface Resistivity [4]	1.E+05 – 1.E+09	Ω	ASTM D257
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-101282874	-	-
UL Yellow Card Link 2	E121562-101284112	-	-
UL Yellow Card Link 3	E207780-103093671	-	-
UL Recognized, 94V-0 Flame Class Rating	≥0.5	mm	UL 94
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.

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