

LNPTM STAT-KONTM COMPOUND DD0009

D-FR

DESCRIPTION

LNP STAT-KON DD0009 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 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yield	61	MPa	ASTM D638
Tensile Stress, break	53	MPa	ASTM D638
Tensile Strain, yield	1.2	%	ASTM D638
Tensile Strain, break	5.6	%	ASTM D638
Tensile Modulus, 50 mm/min	2820	MPa	ASTM D638
Flexural Stress	108	MPa	ASTM D790
Flexural Modulus	2820	MPa	ASTM D790
Tensile Stress, yield	62	MPa	ISO 527
Tensile Stress, break	57	MPa	ISO 527
Tensile Strain, yield	4.1	%	ISO 527
Tensile Strain, break	7.5	%	ISO 527
Tensile Modulus, 1 mm/min	2810	MPa	ISO 527
Flexural Stress	102	MPa	ISO 178
Flexural Modulus	2880	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	1556	J/m	ASTM D4812
Izod Impact, notched, 23°C	68	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	10	J	ASTM D3763
Multiaxial Impact	5	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	70	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	141	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	132	°C	ASTM D648
CTE, -40°C to 40°C, flow	5.36E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	5.67E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	5.36E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.67E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	139	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	131	°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	1.32	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.18	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.8	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.7	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.75	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.72	%	ISO 294
Moisture Absorption (23°C / 50% RH)	0.27	%	ISO 62
Melt Volume Rate, MVR at 300°C/5.0 kg	31	cm ³ /10 min	ASTM D1238
ELECTRICAL ⁽¹⁾			
Surface Resistivity ⁽⁴⁾	1.E+04 – 1.E+10	Ω	ASTM D257
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	E121562-101283903	-	-
UL Yellow Card Link 2	E207780-101283852	-	-
UL Yellow Card Link 3	E45329-101283865	-	-
UL Recognized, 94V-0 Flame Class Rating	1.7	mm	UL 94
INJECTION MOLDING ⁽⁵⁾			
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	48	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	270 – 295	°C	
Nozzle Temperature	265 – 290	°C	
Front - Zone 3 Temperature	270 – 295	°C	
Middle - Zone 2 Temperature	260 – 280	°C	
Rear - Zone 1 Temperature	250 – 270	°C	
Back Pressure	0.3 – 0.7	MPa	
Mold Temperature	70 – 95	°C	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	40 – 60	%	
Vent Depth	0.025 – 0.076	mm	

- (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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