

LNPTM STAT-KONTM COMPOUND DE0021E

DC-1002 EM FR ECO

DESCRIPTION

LNP STAT-KON DE0021E compound is based on Polycarbonate (PC) resin containing 10% carbon fiber. Added features of this grade include: Easy Molding, Non-Brominated, Non-Chlorinated Flame Retardant, Electrically Conductive.

GENERAL INFORMATION

Features	Flame Retardant, Electrically Conductive, Good Processability, Non Cl/Br flame retardant, Carbon fiber filled, High stiffness/Strength
Fillers	Carbon Fiber
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY

Electrical and Electronics
Industrial

SUB INDUSTRY

Electronic Components
Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, break	114	MPa	ASTM D638
Tensile Strain, break	1.8	%	ASTM D638
Tensile Modulus, 50 mm/min	9160	MPa	ASTM D638
Flexural Stress	170	MPa	ASTM D790
Flexural Modulus	8210	MPa	ASTM D790
Tensile Stress, break	112	MPa	ISO 527
Tensile Strain, break	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	9360	MPa	ISO 527
Flexural Stress	169	MPa	ISO 178
Flexural Modulus	8500	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	347	J/m	ASTM D4812
Izod Impact, notched, 23°C	37	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	9	J	ASTM D3763
Multiaxial Impact	7	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	31	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	93	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.67E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.08E-05	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	1.67E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.09E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	96	°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	1.27	g/cm ³	ASTM D792
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.1 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.2 – 0.4	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.06 – 0.32	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.29 – 0.43	%	ISO 294
Density	1.27	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.1	%	ISO 62
ELECTRICAL ⁽¹⁾			
Surface Resistivity ⁽⁴⁾	1.E+02 – 1.E+06	Ω	ASTM D257
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	E121562-101358155	-	-
UL Yellow Card Link 2	E207780-101284513	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.5	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥1.2	mm	UL 94
INJECTION MOLDING ⁽⁵⁾			
Drying Temperature	80	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	255 – 290	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	255 – 265	°C	
Rear - Zone 1 Temperature	250 – 260	°C	
Mold Temperature	40 – 65	°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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