

LNPTM STAT-KONTM COMPOUND DJ000IXX3

DESCRIPTION

LNP STAT-KON DJ000IXX3 is a static dissipative CNT compound based on Polycarbonate Copolymer, having an outstanding low temperature impact strength combined with excellent processing properties. This material has a fit in a broad range of markets, including electronics, mobility and industrial.

GENERAL INFORMATION	
Features	Antistatic, Heat Stabilized, High Flow, Thermally Conductive, Thin Wall, Amorphous, Enhanced mold release, Dimensional stability, Impact resistant, Low temperature impact, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

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

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Modulus, 1 mm/min	2400	MPa	ISO 527
Tensile Stress, yield, 50 mm/min	60	MPa	ISO 527
Tensile Stress, break, 50 mm/min	50	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5.5	%	ISO 527
Tensile Nominal Strain, break, 50 mm/min	10	%	ISO 527
Flexural Modulus, 2 mm/min	2500	MPa	ISO 178
Flexural Strength, 2 mm/min	93	MPa	ISO 178
Tensile Stress, yld, Type I, 50 mm/min	60	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	50	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	5.5	%	ASTM D638
Tensile Nominal Strain, brk, Type I, 50 mm/min	11	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2700	MPa	ASTM D790
Flexural Strength, 1.3 mm/min, 50 mm span	93	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched 80*10*3 +23°C	70	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*3 +10°C	67	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*3 0°C	59	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*3 -10°C	49	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*3 -20°C	29	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*3 -30°C	25	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*3 +23°C	NB	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*3 -30°C	NB	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	53	kJ/m ²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched 80*10*4 +10°C	51	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 0°C	51	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	22	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -20°C	20	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	16	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	NB	kJ/m ²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	60	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	17	kJ/m ²	ISO 179/1eA
Multi-Axial Instrumented Impact Total Energy, 23°C	65	J	ISO 6603-2
Multi-Axial Instrumented Impact Energy @ peak, 23°C	60	J	ISO 6603-2
Multi-Axial Instrumented Impact Total Energy, -30°C	60	J	ISO 6603-2
Multi-Axial Instrumented Impact Energy @ peak, -30°C	44	J	ISO 6603-2
Izod Impact, notched, 23°C	720	J/m	ASTM D256
Izod Impact, notched, -30°C	170	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	44	J	ASTM D3763
Instrumented Dart Impact Energy @ peak, 23°C	39	J	ASTM D3763
Instrumented Dart Impact Peak Force, 23°C	5200	N	ASTM D3763
Instrumented Dart Impact Total Energy, -30°C	36	J	ASTM D3763
Instrumented Dart Impact Energy @ peak, -30°C	31	J	ASTM D3763
Instrumented Dart Impact Peak Force, -30°C	5160	N	ASTM D3763
THERMAL ⁽¹⁾			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	127	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	139	°C	ISO 75/Bf
Vicat Softening Temp, Rate B/50	144	°C	ISO 306
Vicat Softening Temp, Rate B/120	144	°C	ISO 306
Vicat Softening Temp, Rate A/50	152	°C	ISO 306
Vicat Softening Temp, Rate A/120	153	°C	ISO 306
CTE, -40°C to 40°C, flow	6.3E-5	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.4E-5	1/°C	ISO 11359-2
HDT, 1.82 MPa, 3.2mm, unannealed	127	°C	ASTM D648
HDT, 0.45 MPa, 3.2 mm, unannealed	139	°C	ASTM D648
Vicat Softening Temp, Rate B/50	144	°C	ASTM D1525
Vicat Softening Temp, Rate B/120	144	°C	ASTM D1525
Vicat Softening Temp, Rate A/50	152	°C	ASTM D1525
Vicat Softening Temp, Rate A/120	153	°C	ASTM D1525
CTE, -40°C to 40°C, flow	6.3E-5	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.4E-5	1/°C	ASTM E831
Ball Pressure Test, 125°C +/- 2°C	PASS	-	IEC 60695-10-2
PHYSICAL ⁽¹⁾			
Density	1.2	g/cm ³	ISO 1183
Melt Volume Rate, MVR at 300°C/5.0 kg	17	cm ³ /10 min	ISO 1133
Mold shrinkage, flow (mold temp=100°C) ⁽²⁾	0.5 – 0.6	%	SABIC method
Mold shrinkage, xflow (mold temp=100°C) ⁽²⁾	0.5 – 0.6	%	SABIC method
Specific Gravity	1.2	-	ASTM D792

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
ELECTRICAL			
Surface Resistivity	1E+04 – 1E+07	Ω	ANSI/ESD STM11.11
Surface Resistivity	1E+04 – 1E+07	Ω	ASTM D257
Volume Resistivity	1E+01 – 1E+03	Ω.cm	SABIC method
INJECTION MOLDING ⁽³⁾			
Drying Temperature	110 – 120	°C	
Drying Time	2 – 4	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.2	%	
Melt Temperature	300 – 330	°C	
Rear - Zone 1 Temperature	280 – 310	°C	
Middle - Zone 2 Temperature	290 – 320	°C	
Front - Zone 3 Temperature	300 – 330	°C	
Nozzle Temperature	300 – 330	°C	
Mold Temperature	80 – 120	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw speed (Circumferential speed)	0.15 – 0.2	m/s	

- (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) 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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