

LNPTM STAT-KONTM COMPOUND RE003

RC-1003

REGION AMERICAS

DESCRIPTION

LNP STAT-KON RE003 compound is based on Nylon 6/6 resin containing 15% carbon fiber. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Carbon fiber filled, High stiffness/Strength, No PFAS intentionally added
Fillers	Carbon Fiber
Polymer Types	Polyamide 66 (Nylon 66)
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, break	201	MPa	ASTM D638
Tensile Strain, break	2.6	%	ASTM D638
Tensile Modulus, 50 mm/min	11720	MPa	ASTM D638
Flexural Stress	302	MPa	ASTM D790
Flexural Modulus	11260	MPa	ASTM D790
Tensile Stress, break	180	MPa	ISO 527
Tensile Strain, break	2.4	%	ISO 527
Tensile Modulus, 1 mm/min	11200	MPa	ISO 527
Flexural Stress	287	MPa	ISO 178
Flexural Modulus	10650	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	432	J/m	ASTM D4812
Izod Impact, notched, 23°C	64	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	8	J	ASTM D3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	35	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	260	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	250	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.43E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.85E-05	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	2.43E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.86E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	260	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	245	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Density	1.203	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.93	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.2 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.7 – 0.8	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.17 – 0.26	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.68 – 0.78	%	ISO 294
Density	1.2	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.47	%	ISO 62
ELECTRICAL ⁽¹⁾			
Surface Resistivity ⁽³⁾	1.E+02 – 1.E+06	Ω	ASTM D257
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	280 – 305	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Rear - Zone 1 Temperature	265 – 275	°C	
Mold Temperature	95 – 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.

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