

LNPTM STAT-KONTM COMPOUND RX05489

RCFL-4536

REGION AMERICAS

DESCRIPTION

LNP STAT-KON RX05489 compound is based on Nylon 6/6 resin containing 10% carbon fiber, 20% glass fiber, 15% PTFE/silicone. Added features of this grade include: Electrically Conductive, Wear Resistant.

GENERAL INFORMATION	
Features	Electrically Conductive, Wear resistant, Carbon fiber filled, High stiffness/Strength
Fillers	Carbon Fiber, Glass Fiber, PTFE/Silicone
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, yld, Type I, 5 mm/min	175	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	175	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.4	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.4	%	ASTM D638
Tensile Modulus, 50 mm/min	14940	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	256	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	257	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	12100	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	172	MPa	ISO 527
Tensile Stress, break, 5 mm/min	172	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.5	%	ISO 527
Tensile Strain, break, 5 mm/min	2.5	%	ISO 527
Tensile Modulus, 1 mm/min	13630	MPa	ISO 527
Flexural Stress	258	MPa	ISO 178
Flexural Modulus, 2 mm/min	12040	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	807	J/m	ASTM D4812
Izod Impact, notched, 23°C	85	J/m	ASTM D256
Multiaxial Impact	2	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	8	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	48	kJ/m ²	ISO 180/1U

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched 80*10*4 +23°C	7	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	258	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	246	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	255	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	238	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Density	1.41	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.62	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.5 – 0.7	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.7 – 0.9	%	ASTM D955
Density	1.41	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.92	%	ISO 62
ELECTRICAL ⁽¹⁾			
Surface Resistivity ⁽³⁾	1.E+01 – 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	275 – 290	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Rear - Zone 1 Temperature	265 – 275	°C	
Mold Temperature	80 – 95	°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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