

LNPTM STAT-KONTM COMPOUND RE0029

RC-1002 FR

DESCRIPTION

LNP STAT-KON RE0029 compound is based on Nylon 6/6 resin containing 10% carbon fiber. Added features of this grade include: Electrically Conductive, Flame Retardant.

GENERAL INFORMATION	
Features	Flame Retardant, 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, yield	131	MPa	ASTM D638
Tensile Stress, break	131	MPa	ASTM D638
Tensile Strain, yield	1.7	%	ASTM D638
Tensile Strain, break	1.7	%	ASTM D638
Tensile Modulus, 50 mm/min	11030	MPa	ASTM D638
Flexural Stress	179	MPa	ASTM D790
Flexural Modulus	8270	MPa	ASTM D790
Tensile Stress, yield	126	MPa	ISO 527
Tensile Stress, break	126	MPa	ISO 527
Tensile Strain, yield	1.6	%	ISO 527
Tensile Strain, break	1.6	%	ISO 527
Tensile Modulus, 1 mm/min	10210	MPa	ISO 527
Flexural Stress	186	MPa	ISO 178
Flexural Modulus	9000	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	1329	J/m	ASTM D4812
Izod Impact, notched, 23°C	32	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	5	J	ASTM D3763
Multiaxial Impact	3	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	24	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m ²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	256	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	238	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.52E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.48E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	2.60E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.40E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	253	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	233	°C	ISO 75/Af
Relative Temp Index, Elec ⁽²⁾	65	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	65	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	65	°C	UL 746B
PHYSICAL ⁽¹⁾			
Density	1.46	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.4	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	1.1	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.44	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	1.1	%	ISO 294
Density	1.46	g/cm ³	ISO 1183
ELECTRICAL ⁽¹⁾			
Surface Resistivity ⁽⁴⁾	1.E+02 – 1.E+06	Ω	ASTM D257
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	E207780-101282596	-	-
UL Yellow Card Link 2	E207780-103093587	-	-
UL Recognized, 94V-1 Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING ⁽⁵⁾			
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) 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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