

LNPT[™] STAT-KON[™] COMPOUND RFD03

RF-15

REGION AMERICAS

DESCRIPTION

LNP STAT-KON RFD03 compound is based on Nylon 6/6 resin containing conductive carbon powder and 15% glass fiber. Added features of this grade include: Electrically Conductive.

GENERAL INFORMATION

Features	Electrically Conductive, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber, Carbon Powder
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding

INDUSTRY

Electrical and Electronics
Industrial

SUB INDUSTRY

Electronic Components
Material Handling

TYPICAL PROPERTY VALUES

Revision 20230607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 5 mm/min	91	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	91	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	1.3	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.3	%	ASTM D638
Tensile Modulus, 50 mm/min	8920	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	177	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	179	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	6330	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	90	MPa	ISO 527
Tensile Stress, break, 5 mm/min	90	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.2	%	ISO 527
Tensile Strain, break, 5 mm/min	1.2	%	ISO 527
Tensile Modulus, 1 mm/min	8010	MPa	ISO 527
Flexural Stress	134	MPa	ISO 178
Flexural Modulus, 2 mm/min	6600	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	291	J/m	ASTM D4812
Izod Impact, notched, 23°C	53	J/m	ASTM D256
Multiaxial Impact	1	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	5	J	ASTM D3763
Izod Impact, unnotched 80°10°4 +23°C	20	kJ/m ²	ISO 180/1U

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CHEMISTRY THAT MATTERS[™]

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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	258	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	247	°C	ASTM D648
CTE, -30°C to 30°C, flow	3.E-06	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	8.E-06	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	258	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	245	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Specific Gravity	1.35	-	ASTM D792
Density	1.34	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 – 0.8	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	1 – 3	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.99	%	ISO 62
ELECTRICAL ⁽¹⁾			
Surface Resistivity ⁽³⁾	1.E+01 – 1.E+05	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.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

MORE INFORMATION

For curve data and CAE cards, please visit and register at <https://materialfinder.sabic-specialties.com>



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