

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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