# LNP™ STAT-KON™ COMPOUND DJ000IXX3

## DESCRIPTION

LNP STAT-KON DJ000IXX3 is a static dissipative CNT compound based on Polycarbonate Copolymer, having an outstanding low temperature impact strength combined with excellent processing properties. This material has a fit in a broad range of markets, including electronics, mobility and industrial.

| GENERAL INFORMATION | |
|---|---|
| **Features** | Antistatic, Heat Stabilized, High Flow, Thermally Conductive, Thin Wall, Amorphous, Enhanced mold release, Dimensional stability, Impact resistant, Low temperature impact, No PFAS intentionally added |
| **Fillers** | Unreinforced |
| **Polymer Types** | Polycarbonate (PC) |
| **Processing Techniques** | Injection Molding |

| INDUSTRY | SUB INDUSTRY |
|---|---|
| Electrical and Electronics | Electronic Components, Mobile Phone - Computer - Tablets |
| Industrial | Material Handling |

## TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL [1] | | | |
| **Tensile Modulus, 1 mm/min** | 2400 | MPa | ISO 527 |
| **Tensile Stress, yield, 50 mm/min** | 60 | MPa | ISO 527 |
| **Tensile Stress, break, 50 mm/min** | 50 | MPa | ISO 527 |
| **Tensile Strain, yield, 50 mm/min** | 5.5 | % | ISO 527 |
| **Tensile Nominal Strain, break, 50 mm/min** | 10 | % | ISO 527 |
| **Flexural Modulus, 2 mm/min** | 2500 | MPa | ISO 178 |
| **Flexural Strength, 2 mm/min** | 93 | MPa | ISO 178 |
| **Tensile Stress, yld, Type I, 50 mm/min** | 60 | MPa | ASTM D638 |
| **Tensile Stress, brk, Type I, 50 mm/min** | 50 | MPa | ASTM D638 |
| **Tensile Strain, yld, Type I, 50 mm/min** | 5.5 | % | ASTM D638 |
| **Tensile Nominal Strain, brk, Type I, 50 mm/min** | 11 | % | ASTM D638 |
| **Flexural Modulus, 1.3 mm/min, 50 mm span** | 2700 | MPa | ASTM D790 |
| **Flexural Strength, 1.3 mm/min, 50 mm span** | 93 | MPa | ASTM D790 |
| IMPACT [1] | | | |
| **Izod Impact, notched 80*10*3 +23°C** | 70 | kJ/m² | ISO 180/1A |
| **Izod Impact, notched 80*10*3 +10°C** | 67 | kJ/m² | ISO 180/1A |
| **Izod Impact, notched 80*10*3 0°C** | 59 | kJ/m² | ISO 180/1A |
| **Izod Impact, notched 80*10*3 -10°C** | 49 | kJ/m² | ISO 180/1A |
| **Izod Impact, notched 80*10*3 -20°C** | 29 | kJ/m² | ISO 180/1A |
| **Izod Impact, notched 80*10*3 -30°C** | 25 | kJ/m² | ISO 180/1A |
| **Izod Impact, unnotched 80*10*3 +23°C** | NB | kJ/m² | ISO 180/1U |
| **Izod Impact, unnotched 80*10*3 -30°C** | NB | kJ/m² | ISO 180/1U |
| **Izod Impact, notched 80*10*4 +23°C** | 53 | kJ/m² | ISO 180/1A |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| Izod Impact, notched 80*10*4 +10°C | 51 | kJ/m² | ISO 180/1A |
| Izod Impact, notched 80*10*4 0°C | 51 | kJ/m² | ISO 180/1A |
| Izod Impact, notched 80*10*4 -10°C | 22 | kJ/m² | ISO 180/1A |
| Izod Impact, notched 80*10*4 -20°C | 20 | kJ/m² | ISO 180/1A |
| Izod Impact, notched 80*10*4 -30°C | 16 | kJ/m² | ISO 180/1A |
| Izod Impact, unnotched 80*10*4 +23°C | NB | kJ/m² | ISO 180/1U |
| Izod Impact, unnotched 80*10*4 -30°C | NB | kJ/m² | ISO 180/1U |
| Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm | 60 | kJ/m² | ISO 179/1eA |
| Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm | 17 | kJ/m² | ISO 179/1eA |
| Multi-Axial Instrumented Impact Total Energy, 23°C | 65 | J | ISO 6603-2 |
| Multi-Axial Instrumented Impact Energy @ peak, 23°C | 60 | J | ISO 6603-2 |
| Multi-Axial Instrumented Impact Total Energy, -30°C | 60 | J | ISO 6603-2 |
| Multi-Axial Instrumented Impact Energy @ peak, -30°C | 44 | J | ISO 6603-2 |
| Izod Impact, notched, 23°C | 720 | J/m | ASTM D256 |
| Izod Impact, notched, -30°C | 170 | J/m | ASTM D256 |
| Instrumented Dart Impact Total Energy, 23°C | 44 | J | ASTM D3763 |
| Instrumented Dart Impact Energy @ peak, 23°C | 39 | J | ASTM D3763 |
| Instrumented Dart Impact Peak Force, 23°C | 5200 | N | ASTM D3763 |
| Instrumented Dart Impact Total Energy, -30°C | 36 | J | ASTM D3763 |
| Instrumented Dart Impact Energy @ peak, -30°C | 31 | J | ASTM D3763 |
| Instrumented Dart Impact Peak Force, -30°C | 5160 | N | ASTM D3763 |
| THERMAL [1] | | | |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 127 | °C | ISO 75/Af |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm | 139 | °C | ISO 75/Bf |
| Vicat Softening Temp, Rate B/50 | 144 | °C | ISO 306 |
| Vicat Softening Temp, Rate B/120 | 144 | °C | ISO 306 |
| Vicat Softening Temp, Rate A/50 | 152 | °C | ISO 306 |
| Vicat Softening Temp, Rate A/120 | 153 | °C | ISO 306 |
| CTE, -40°C to 40°C, flow | 6.3E-5 | 1/°C | ISO 11359-2 |
| CTE, -40°C to 40°C, xflow | 6.4E-5 | 1/°C | ISO 11359-2 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 127 | °C | ASTM D648 |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 139 | °C | ASTM D648 |
| Vicat Softening Temp, Rate B/50 | 144 | °C | ASTM D1525 |
| Vicat Softening Temp, Rate B/120 | 144 | °C | ASTM D1525 |
| Vicat Softening Temp, Rate A/50 | 152 | °C | ASTM D1525 |
| Vicat Softening Temp, Rate A/120 | 153 | °C | ASTM D1525 |
| CTE, -40°C to 40°C, flow | 6.3E-5 | 1/°C | ASTM E831 |
| CTE, -40°C to 40°C, xflow | 6.4E-5 | 1/°C | ASTM E831 |
| Ball Pressure Test, 125°C +/- 2°C | PASS | - | IEC 60695-10-2 |
| PHYSICAL [1] | | | |
| Density | 1.2 | g/cm³ | ISO 1183 |
| Melt Volume Rate, MVR at 300°C/5.0 kg | 17 | cm³/10 min | ISO 1133 |
| Mold shrinkage, flow (mold temp=100°C) [2] | 0.5 – 0.6 | % | SABIC method |
| Mold shrinkage, xflow (mold temp=100°C) [2] | 0.5 – 0.6 | % | SABIC method |
| Specific Gravity | 1.2 | - | ASTM D792 |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| ELECTRICAL | | | |
| Surface Resistivity | 1E+04 – 1E+07 | Ω | ANSI/ESD STM11.11 |
| Surface Resistivity | 1E+04 – 1E+07 | Ω | ASTM D257 |
| Volume Resistivity | 1E+01 – 1E+03 | Ω.cm | SABIC method |
| INJECTION MOLDING [3] | | | |
| Drying Temperature | 110 – 120 | °C | |
| Drying Time | 2 – 4 | Hrs | |
| Drying Time (Cumulative) | 8 | Hrs | |
| Maximum Moisture Content | 0.2 | % | |
| Melt Temperature | 300 – 330 | °C | |
| Rear - Zone 1 Temperature | 280 – 310 | °C | |
| Middle - Zone 2 Temperature | 290 – 320 | °C | |
| Front - Zone 3 Temperature | 300 – 330 | °C | |
| Nozzle Temperature | 300 – 330 | °C | |
| Mold Temperature | 80 – 120 | °C | |
| Back Pressure | 0.3 – 0.7 | MPa | |
| Screw speed (Circumferential speed) | 0.15 – 0.2 | m/s | |

(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) 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.

## DISCLAIMER