



## LNP™ STAT-KON™ Compound TE002

### Americas: COMMERCIAL

Also known as: LNP™ STAT-KON™ Compound TC-1002

Product reorder name: TE002

LNP STAT-KON TE002 is a compound based on Polyurethane resin containing 10% Carbon Fiber. Added feature of this material is: Electrically Conductive.

| TYPICAL PROPERTIES <sup>1</sup>          | TYPICAL VALUE | Unit                | Standard    |
|------------------------------------------|---------------|---------------------|-------------|
| <b>MECHANICAL</b>                        |               |                     |             |
| Tensile Stress, yld, Type I, 5 mm/min    | 530           | kgf/cm <sup>2</sup> | ASTM D 638  |
| Tensile Stress, brk, Type I, 5 mm/min    | 490           | kgf/cm <sup>2</sup> | ASTM D 638  |
| Tensile Strain, yld, Type I, 5 mm/min    | 19.2          | %                   | ASTM D 638  |
| Tensile Strain, brk, Type I, 5 mm/min    | 22.8          | %                   | ASTM D 638  |
| Tensile Modulus, 50 mm/min               | 13300         | kgf/cm <sup>2</sup> | ASTM D 638  |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 11800         | kgf/cm <sup>2</sup> | ASTM D 790  |
| Tensile Stress, yield, 5 mm/min          | 50            | MPa                 | ISO 527     |
| Tensile Stress, break, 5 mm/min          | 49            | MPa                 | ISO 527     |
| Tensile Strain, yield, 5 mm/min          | 15.7          | %                   | ISO 527     |
| Tensile Strain, break, 5 mm/min          | 19.8          | %                   | ISO 527     |
| Tensile Modulus, 1 mm/min                | 1580          | MPa                 | ISO 527     |
| Flexural Stress                          | 51            | MPa                 | ISO 178     |
| Flexural Modulus, 2 mm/min               | 1660          | MPa                 | ISO 178     |
| <b>IMPACT</b>                            |               |                     |             |
| Izod Impact, unnotched, 23°C             | 172           | cm-kgf/cm           | ASTM D 4812 |
| Izod Impact, notched, 23°C               | 48            | cm-kgf/cm           | ASTM D 256  |
| Multiaxial Impact                        | 153           | cm-kgf              | ISO 6603    |
| Instrumented Impact Total Energy, 23°C   | 234           | cm-kgf              | ASTM D 3763 |
| Izod Impact, unnotched 80*10*4 +23°C     | 128           | kJ/m <sup>2</sup>   | ISO 180/1U  |
| Izod Impact, notched 80*10*4 +23°C       | 37            | kJ/m <sup>2</sup>   | ISO 180/1A  |
| <b>THERMAL</b>                           |               |                     |             |
| HDT, 0.45 MPa, 3.2 mm, unannealed        | 141           | °C                  | ASTM D 648  |
| HDT, 1.82 MPa, 3.2mm, unannealed         | 82            | °C                  | ASTM D 648  |



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|----------------------------------------|-----------------|-------------------|------------|
| <b>THERMAL</b>                         |                 |                   |            |
| CTE, -30°C to 30°C, flow               | 1.E-06          | 1/°C              | ASTM D 696 |
| CTE, -30°C to 30°C, xflow              | 1.6E-05         | 1/°C              | ASTM D 696 |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm | 175             | °C                | ISO 75/Bf  |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm  | 88              | °C                | ISO 75/Af  |
| <b>PHYSICAL</b>                        |                 |                   |            |
| Density                                | 1.27            | g/cm <sup>3</sup> | ASTM D 792 |
| Moisture Absorption, 50% RH, 24 hrs    | 0.46            | %                 | ASTM D 570 |
| Mold Shrinkage, flow, 24 hrs (5)       | 0.1 - 0.3       | %                 | ASTM D 955 |
| Mold Shrinkage, xflow, 24 hrs (5)      | 0.2 - 0.4       | %                 | ASTM D 955 |
| Density                                | 1.27            | g/cm <sup>3</sup> | ISO 1183   |
| Moisture Absorption (23°C / 50% RH)    | 0.6             | %                 | ISO 62     |
| <b>ELECTRICAL</b>                      |                 |                   |            |
| Surface Resistivity                    | 5.E+00 - 8.E+00 | Ohm               | ASTM D 257 |



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| PROCESSING PARAMETERS       | TYPICAL VALUE | Unit |
|-----------------------------|---------------|------|
| <b>Injection Molding</b>    |               |      |
| Drying Temperature          | 95 - 105      | °C   |
| Drying Time                 | 2             | hrs  |
| Maximum Moisture Content    | 0.03          | %    |
| Melt Temperature            | 210           | °C   |
| Nozzle Temperature          | 205 - 225     | °C   |
| Front - Zone 3 Temperature  | 200 - 220     | °C   |
| Middle - Zone 2 Temperature | 195 - 215     | °C   |
| Rear - Zone 1 Temperature   | 195 - 210     | °C   |
| Mold Temperature            | 15 - 45       | °C   |
| Back Pressure               | 0.2 - 0.3     | MPa  |
| Screw Speed                 | 30 - 60       | rpm  |
| Shot to Cylinder Size       | 40 - 80       | %    |