

## LNP<sup>TM</sup> STAT-KON<sup>TM</sup> COMPOUND ZE0039

ZC-1003 FR REGION ASIA

## **DESCRIPTION**

LNP\* STAT-KON\* ZE0039 is a compound based on PPO resin containing 15% Carbon Fiber. Added features of this grade includes: Flame Retardant, Electrically Conductive.

## **TYPICAL PROPERTY VALUES**

Revision 20181231

| PROPERTIES                              | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|-------|--------------|
| MECHANICAL                              |                |       |              |
| Tensile Stress, yield                   | 112            | MPa   | ASTM D 638   |
| Tensile Stress, break                   | 112            | MPa   | ASTM D 638   |
| Tensile Strain, yield                   | 1.2            | %     | ASTM D 638   |
| Tensile Strain, break                   | 1.2            | %     | ASTM D 638   |
| Tensile Modulus, 50 mm/min              | 11720          | MPa   | ASTM D 638   |
| Flexural Stress                         | 117            | MPa   | ASTM D 790   |
| Flexural Modulus                        | 8960           | MPa   | ASTM D 790   |
| Tensile Stress, yield                   | 105            | MPa   | ISO 527      |
| Tensile Stress, break                   | 105            | MPa   | ISO 527      |
| Tensile Strain, yield                   | 1.1            | %     | ISO 527      |
| Tensile Strain, break                   | 1.1            | %     | ISO 527      |
| Tensile Modulus, 1 mm/min               | 10970          | MPa   | ISO 527      |
| Flexural Stress                         | 150            | MPa   | ISO 178      |
| Flexural Modulus                        | 10600          | MPa   | ISO 178      |
| IMPACT                                  |                |       |              |
| Izod Impact, unnotched, 23°C            | 267            | J/m   | ASTM D 4812  |
| Izod Impact, notched, 23°C              | 48             | J/m   | ASTM D 256   |
| Instrumented Impact Energy @ peak, 23°C | 11             | J     | ASTM D 3763  |
| Izod Impact, unnotched 80*10*4 +23°C    | 18             | kJ/m² | ISO 180/1U   |
| Izod Impact, notched 80*10*4 +23°C      | 5              | kJ/m² | ISO 180/1A   |
| THERMAL                                 |                |       |              |
| HDT, 0.45 MPa, 3.2 mm, unannealed       | 112            | °C    | ASTM D 648   |
| HDT, 1.82 MPa, 3.2mm, unannealed        | 103            | °C    | ASTM D 648   |
| CTE, -40°C to 40°C, flow                | 4.68E-05       | 1/°C  | ASTM E 831   |
| CTE, -40°C to 40°C, xflow               | 2.88E-05       | 1/°C  | ASTM E 831   |
| CTE, -40°C to 40°C, flow                | 4.7E-05        | 1/°C  | ISO 11359-2  |
| CTE, -40°C to 40°C, xflow               | 2.9E-05        | 1/°C  | ISO 11359-2  |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm  | 113            | °C    | ISO 75/Bf    |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm   | 106            | °C    | ISO 75/Af    |
| PHYSICAL                                |                |       |              |
| Density                                 | 1.21           | g/cm³ | ASTM D 792   |
| Moisture Absorption, 50% RH, 24 hrs     | 0.1            | %     | ASTM D 570   |
| Mold Shrinkage, flow, 24 hrs            | 0.1 – 0.2      | %     | ASTM D 955   |
|   |                |       |              |



| PROPERTIES                    | TYPICAL VALUES  | UNITS | TEST METHODS |
|-------------------------------|-----------------|-------|--------------|
| Mold Shrinkage, xflow, 24 hrs | 0.2 – 0.4       | %     | ASTM D 955   |
| Mold Shrinkage, flow, 24 hrs  | 0.09            | %     | ISO 294      |
| Mold Shrinkage, xflow, 24 hrs | 0.3             | %     | ISO 294      |
| Density                       | 1.2             | g/cm³ | ISO 1183     |
| ELECTRICAL                    |                 |       |              |
| Surface Resistivity           | 1.E+02 – 1.E+04 | Ohm   | ASTM D 257   |
| INJECTION MOLDING             |                 |       |              |
| Drying Temperature            | 120             | °C    |              |
| Drying Time                   | 4               | hrs   |              |
| Melt Temperature              | 300 – 305       | °C    |              |
| Front - Zone 3 Temperature    | 300 – 310       | °C    |              |
| Middle - Zone 2 Temperature   | 290 – 300       | °C    |              |
| Rear - Zone 1 Temperature     | 275 – 290       | °C    |              |
| Mold Temperature              | 80 – 110        | °C    |              |
| Back Pressure                 | 0.2 – 0.3       | MPa   |              |
| Screw Speed                   | 30 – 60         | rpm   |              |

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