# LNP™ THERMOTUF™ COMPOUND WF003I

WF-1003 HI
REGION AMERICAS

## DESCRIPTION

LNP THERMOTUF* WF003I is a compound based on PBT resin containing 15% Glass Fiber. Added features of this material include: High Impact.

## TYPICAL PROPERTY VALUES

Revision 20181231

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, break | 79 | MPa | ASTM D 638 |
| Flexural Stress | 134 | MPa | ASTM D 790 |
| Flexural modulus | 4580 | MPa | ASTM D 790 |
| Tensile Stress, yield | 78 | MPa | ISO 527 |
| Tensile Stress, break | 76 | MPa | ISO 527 |
| Tensile Strain, yield | 3 | % | ISO 527 |
| Tensile Strain, break | 4 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 5000 | MPa | ISO 527 |
| Flexural Stress | 130 | MPa | ISO 178 |
| Flexural Modulus | 4710 | MPa | ISO 178 |
| IMPACT | | | |
| Izod Impact, unnotched, 23°C | 720 | J/m | ASTM D 4812 |
| Izod Impact, notched, 23°C | 128 | J/m | ASTM D 256 |
| Instrumented Impact Energy @ peak, 23°C | 12 | J | ASTM D 3763 |
| Multiaxial Impact | 4 | J | ISO 6603 |
| Izod Impact, unnotched 80*10*4 +23°C | 46 | kJ/m² | ISO 180/1U |
| Izod Impact, notched 80*10*4 +23°C | 11 | kJ/m² | ISO 180/1A |
| THERMAL | | | |
| HDT, 1.82 MPa, 3.2mm, unannealed | 201 | °C | ASTM D 648 |
| PHYSICAL | | | |
| Density | 1.374 | g/cm³ | ASTM D 792 |
| Moisture Absorption, 50% RH, 24 hrs | 0.09 | % | ASTM D 570 |
| Mold Shrinkage, flow, 24 hrs | 0.7 | % | ASTM D 955 |
| Mold Shrinkage, xflow, 24 hrs | 1 | % | ASTM D 955 |
| Mold Shrinkage, flow, 24 hrs | 0.75 | % | ISO 294 |
| Mold Shrinkage, xflow, 24 hrs | 0.95 | % | ISO 294 |
| Density | 1.37 | g/cm³ | ISO 1183 |
| Moisture Absorption (23°C / 50% RH) | 0.08 | % | ISO 62 |
| INJECTION MOLDING | | | |
| Drying Temperature | 120 | °C | |
| Drying Time | 4 | hrs | |
| Maximum Moisture Content | 0.05 | % | |
| Melt Temperature | 240 – 265 | °C | |

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| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| Front - Zone 3 Temperature | 260 – 270 | °C | |
| Middle - Zone 2 Temperature | 245 – 255 | °C | |
| Rear - Zone 1 Temperature | 220 – 230 | °C | |
| Mold Temperature | 80 – 100 | °C | |
| Back Pressure | 0.2 – 0.3 | MPa | |
| Screw Speed | 30 – 60 | rpm | |

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