# LNP™ THERMOCOMP™ Compound RF0049SP

## Americas: COMMERCIAL

**Also known as: LNP™ THERMOCOMP™ Compound RF-1004 FR HS**
**Product reorder name: RF0049SP**

LNP THERMOCOMP RF0049SP is a compound based on Nylon 66 containing 20% Glass Fiber. Added features of this grade include: Flame Retardant, Heat Stabilized.

| TYPICAL PROPERTIES[1] | TYPICAL VALUE | Unit | Standard |
|---|---|---|---|
| **MECHANICAL** | | | |
| Tensile Stress, brk, Type I, 5 mm/min | 1420 | kgf/cm² | ASTM D 638 |
| Tensile Strain, yld, Type I, 5 mm/min | 2.3 | % | ASTM D 638 |
| Tensile Strain, brk, Type I, 5 mm/min | 2.4 | % | ASTM D 638 |
| Flexural Stress, brk, 1.3 mm/min, 50 mm span | 2060 | kgf/cm² | ASTM D 790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 88200 | kgf/cm² | ASTM D 790 |
| Tensile Stress, break, 5 mm/min | 140 | MPa | ISO 527 |
| Tensile Strain, break, 5 mm/min | 2.2 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 9600 | MPa | ISO 527 |
| Flexural Modulus, 2 mm/min | 8160 | MPa | ISO 178 |
| **IMPACT** | | | |
| Izod Impact, unnotched, 23°C | 61 | cm-kgf/cm | ASTM D 4812 |
| Izod Impact, notched, 23°C | 6 | cm-kgf/cm | ASTM D 256 |
| Multiaxial Impact | 20 | cm-kgf | ISO 6603 |
| Izod Impact, unnotched 80*10*4 +23°C | 36 | kJ/m² | ISO 180/1U |
| Izod Impact, notched 80*10*4 +23°C | 7 | kJ/m² | ISO 180/1A |
| **THERMAL** | | | |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 255 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 241 | °C | ASTM D 648 |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm | 253 | °C | ISO 75/Bf |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 235 | °C | ISO 75/Af |
| **PHYSICAL** | | | |
| Density | 1.55 | g/cm³ | ASTM D 792 |
| Mold Shrinkage, flow, 24 hrs (5) | 0.4 - 0.6 | % | ASTM D 955 |
| Mold Shrinkage, xflow, 24 hrs (5) | 1 - 3 | % | ASTM D 955 |

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| PROCESSING PARAMETERS | TYPICAL VALUE | Unit |
|---|---|---|
| **Injection Molding** | | |
| 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 |