# LNP™ THERMOCOMP™ Compound MF004S

MFX-1004 HS
REGION AMERICAS

## DESCRIPTION

LNP THERMOCOMP MF004S compound is based on Polypropylene (PP) resin containing 20% glass fiber. Added features of this grade include: Heat Stabilized.

| GENERAL INFORMATION | |
|---|---|
| **Features** | Heat Stabilized, High stiffness/Strength, No PFAS intentionally added |
| **Fillers** | Glass Fiber (Total fluorine >50ppm only from inorganic fluorine) |
| **Polymer Types** | Polypropylene, Unspecified (PP, Unspecified) |
| **Processing Techniques** | Injection Molding |

| INDUSTRY | SUB INDUSTRY |
|---|---|
| Consumer | Sport/Leisure, Personal Accessory |
| Electrical and Electronics | Mobile Phone - Computer - Tablets |
| Industrial | Electrical |

## TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| **MECHANICAL** [1] | | | |
| **Tensile Stress, break** | 66 | MPa | ASTM D638 |
| **Tensile Strain, break** | 3.1 | % | ASTM D638 |
| **Flexural Stress** | 106 | MPa | ASTM D790 |
| **Flexural Modulus** | 4130 | MPa | ASTM D790 |
| **IMPACT** [1] | | | |
| **Izod Impact, unnotched, 23°C** | 534 | J/m | ASTM D4812 |
| **Izod Impact, notched, 23°C** | 42 | J/m | ASTM D256 |
| **THERMAL** [1] | | | |
| **HDT, 1.82 MPa, 3.2mm, unannealed** | 145 | °C | ASTM D648 |
| **Relative Temp Index, Elec** | 65 | °C | UL 746B |
| **Relative Temp Index, Mech w/impact** | 65 | °C | UL 746B |
| **Relative Temp Index, Mech w/o impact** | 65 | °C | UL 746B |
| **PHYSICAL** [1] | | | |
| **Density** | 1.04 | g/cm³ | ASTM D792 |
| **Mold Shrinkage, flow, 24 hrs** [2] | 0.4 | % | ASTM D955 |
| **Mold Shrinkage, xflow, 24 hrs** [2] | 1 | % | ASTM D955 |
| **ELECTRICAL** [1] | | | |
| **Comparative Tracking Index (UL) {PLC}** | 0 | PLC Code | UL 746A |
| **Hot-Wire Ignition (HWI), PLC 2** | ≥3 | mm | UL 746A |
| **Hot-Wire Ignition (HWI), PLC 3** | ≥1 | mm | UL 746A |

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| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| High Amp Arc Ignition (HAI), PLC 1 | ≥1.5 | mm | UL 746A |
| High Amp Arc Ignition (HAI), PLC 3 | ≥1 | mm | UL 746A |
| High Voltage Arc Track Rate {PLC} | 1 | PLC Code | UL 746A |
| Arc Resistance, Tungsten {PLC} | 6 | PLC Code | ASTM D495 |
| FLAME CHARACTERISTICS [3] | | | |
| UL Yellow Card Link | E121562-101283897 | - | - |
| UL Recognized, 94HB Flame Class Rating | ≥1 | mm | UL 94 |
| INJECTION MOLDING [4] | | | |
| Drying Temperature | 80 | °C | |
| Drying Time | 4 | Hrs | |
| Melt Temperature | 225 – 250 | °C | |
| Front - Zone 3 Temperature | 240 – 250 | °C | |
| Middle - Zone 2 Temperature | 215 – 225 | °C | |
| Rear - Zone 1 Temperature | 195 – 205 | °C | |
| Mold Temperature | 30 – 50 | °C | |
| Back Pressure | 0.2 – 0.3 | MPa | |
| Screw Speed | 30 – 60 | rpm | |

(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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(4) 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.

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