# LNP™ THERMOCOMP™ COMPOUND MF002S

MFX-1002 HS
REGION EUROPE

## DESCRIPTION

LNP THERMOCOMP MF002S is a compound based on Polypropylene resin containing 10% Glass Fiber. Added features of this material include: Heat Stabilized.

## TYPICAL PROPERTY VALUES

Revision 20191113

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, yield, 5 mm/min | 53 | MPa | ISO 527 |
| Tensile Stress, break, 5 mm/min | 51 | MPa | ISO 527 |
| Tensile Strain, yield, 5 mm/min | 4 | % | ISO 527 |
| Tensile Strain, break, 5 mm/min | 4.1 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 2970 | MPa | ISO 527 |
| Flexural Stress, yield, 2 mm/min | 74 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 2330 | MPa | ISO 178 |
| IMPACT | | | |
| Izod Impact, unnotched 80*10*4 +23°C | 35 | kJ/m² | ISO 180/1U |
| Izod Impact, notched 80*10*4 +23°C | 8 | kJ/m² | ISO 180/1A |
| THERMAL | | | |
| CTE, 23°C to 60°C, flow | 6.8E-05 | 1/°C | ISO 11359-2 |
| CTE, 23°C to 60°C, xflow | 1.5E-02 | 1/°C | ISO 11359-2 |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm | 146 | °C | ISO 75/Bf |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 106 | °C | ISO 75/Af |
| Relative Temp Index, Elec [1] | 65 | °C | UL 746B |
| Relative Temp Index, Mech w/impact [1] | 65 | °C | UL 746B |
| Relative Temp Index, Mech w/o impact [1] | 65 | °C | UL 746B |
| PHYSICAL | | | |
| Mold Shrinkage, flow | 0.3 – 0.7 | % | SABIC method |
| Density | 0.97 | g/cm³ | ISO 1183 |
| Water Absorption, 23°C/24hrs | 0.01 | % | ISO 62-1 |
| ELECTRICAL | | | |
| 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 |
| 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 D 495 |
| FLAME CHARACTERISTICS [1] | | | |
| UL Yellow Card Link | E45329-103684205 | - | - |

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| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| UL Recognized, 94HB Flame Class Rating | ≥1 | mm | UL 94 |
| Glow Wire Ignitability Temperature, 3.0 mm | 875 | °C | IEC 60695-2-13 |
| Glow Wire Ignitability Temperature, 1.5 mm | 850 | °C | IEC 60695-2-13 |
| Glow Wire Flammability Index, 3.0 mm | 850 | °C | IEC 60695-2-12 |
| Glow Wire Flammability Index, 1.5 mm | 850 | °C | IEC 60695-2-12 |
| INJECTION MOLDING | | | |
| 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) 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.

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