# LNP™ THERMOCOMP™ COMPOUND EF004

EF-1004

## DESCRIPTION

LNP THERMOCOMP EF004 is a compound based on Polyetherimide resin containing 20% Glass Fiber.

## TYPICAL PROPERTY VALUES

Revision 20200109

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, break | 150 | MPa | ASTM D 638 |
| Tensile Strain, break | 3.4 | % | ASTM D 638 |
| Tensile Modulus, 50 mm/min | 7180 | MPa | ASTM D 638 |
| Flexural Stress | 240 | MPa | ASTM D 790 |
| Flexural Modulus | 7570 | MPa | ASTM D 790 |
| Tensile Stress, break | 155 | MPa | ISO 527 |
| Tensile Strain, break | 2.9 – 4 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 6800 | MPa | ISO 527 |
| Flexural Stress | 226 | MPa | ISO 178 |
| Flexural Modulus | 6800 | MPa | ISO 178 |
| IMPACT | | | |
| Izod Impact, unnotched, 23°C | 694 | J/m | ASTM D 4812 |
| Izod Impact, notched, 23°C | 74 | J/m | ASTM D 256 |
| Izod Impact, unnotched 80*10*4 +23°C | 47 | kJ/m² | ISO 180/1U |
| Izod Impact, notched 80*10*4 +23°C | 10 | kJ/m² | ISO 180/1A |
| THERMAL | | | |
| HDT, 1.82 MPa, 3.2mm, unannealed | 207 | °C | ASTM D 648 |
| CTE, -40°C to 40°C, flow | 2.5E-05 | 1/°C | ISO 11359-2 |
| CTE, -40°C to 40°C, xflow | 6.E-05 | 1/°C | ISO 11359-2 |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 205 | °C | ISO 75/Af |
| Relative Temp Index, Elec [1] | 105 | °C | UL 746B |
| Relative Temp Index, Mech w/impact [1] | 105 | °C | UL 746B |
| Relative Temp Index, Mech w/o impact [1] | 105 | °C | UL 746B |
| PHYSICAL | | | |
| Density | 1.43 | g/cm³ | ASTM D 792 |
| Moisture Absorption, 50% RH, 24 hrs | 0.19 | % | ASTM D 570 |
| Mold Shrinkage, flow, 24 hrs | 0.3 – 0.5 | % | ASTM D 955 |
| Mold Shrinkage, xflow, 24 hrs | 0.6 – 0.8 | % | ASTM D 955 |
| Mold Shrinkage, flow, 24 hrs | 0.3 – 0.5 | % | ISO 294 |
| Mold Shrinkage, xflow, 24 hrs | 0.6 – 0.8 | % | ISO 294 |
| Wear Factor Washer | 140 | 10^-10 in^5-min/ft-lb-hr | ASTM D 3702 Modified: Manual |
| Dynamic COF | 0.52 | - | ASTM D 3702 Modified: Manual |
| Static COF | 0.48 | - | ASTM D 3702 Modified: Manual |
| Density | 1.43 | g/cm³ | ISO 1183 |

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| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| FLAME CHARACTERISTICS [1] | | | |
| UL Yellow Card Link | E121562-101357467 | - | - |
| UL Recognized, 94V-0 Flame Class Rating | ≥0.75 | mm | UL 94 |
| INJECTION MOLDING | | | |
| Drying Temperature | 120 – 150 | °C | |
| Drying Time | 4 – 6 | hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 360 – 365 | °C | |
| Front - Zone 3 Temperature | 365 – 375 | °C | |
| Middle - Zone 2 Temperature | 355 – 365 | °C | |
| Rear - Zone 1 Temperature | 345 – 355 | °C | |
| Mold Temperature | 120 – 150 | °C | |
| Back Pressure | 0.3 – 0.7 | MPa | |
| Screw Speed | 60 – 100 | 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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