# LNP™ LUBRICOMP™ COMPOUND EL003

EL-4030
REGION ASIA

## DESCRIPTION

LNP* LUBRICOMP* EL003 is a compound based on Polyetherimide resin containing 15% PTFE. Added feature of this material is: Wear Resistant.

## TYPICAL PROPERTY VALUES

Revision 20190730

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, yield | 88 | MPa | ASTM D 638 |
| Tensile Stress, break | 85 | MPa | ASTM D 638 |
| Tensile Strain, yield | 6.5 | % | ASTM D 638 |
| Tensile Strain, break | 10.3 | % | ASTM D 638 |
| Tensile Modulus, 50 mm/min | 2750 | MPa | ASTM D 638 |
| Flexural Stress | 135 | MPa | ASTM D 790 |
| Flexural Modulus | 2890 | MPa | ASTM D 790 |
| Tensile Stress, yield | 83 | MPa | ISO 527 |
| Tensile Stress, break | 82 | MPa | ISO 527 |
| Tensile Strain, yield | 6.3 | % | ISO 527 |
| Tensile Strain, break | 8.1 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 2740 | MPa | ISO 527 |
| Flexural Stress | 130 | MPa | ISO 178 |
| Flexural Modulus | 3020 | MPa | ISO 178 |
| IMPACT | | | |
| Izod Impact, unnotched, 23°C | 747 | J/m | ASTM D 4812 |
| Izod Impact, notched, 23°C | 69 | J/m | ASTM D 256 |
| Instrumented Impact Energy @ peak, 23°C | 9 | J | ASTM D 3763 |
| Multiaxial Impact | 1 | J | ISO 6603 |
| Izod Impact, unnotched 80*10*4 +23°C | 61 | kJ/m² | ISO 180/1U |
| Izod Impact, notched 80*10*4 +23°C | 8 | kJ/m² | ISO 180/1A |
| THERMAL | | | |
| HDT, 1.82 MPa, 3.2mm, unannealed | 182 | °C | ASTM D 648 |
| CTE, -40°C to 40°C, flow | 4.78E-05 | 1/°C | ASTM E 831 |
| CTE, -40°C to 40°C, xflow | 4.76E-05 | 1/°C | ASTM E 831 |
| CTE, -40°C to 40°C, flow | 4.77E-05 | 1/°C | ISO 11359-2 |
| CTE, -40°C to 40°C, xflow | 4.76E-05 | 1/°C | ISO 11359-2 |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 182 | °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 | 1.35 | g/cm³ | ASTM D 792 |

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| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| Moisture Absorption, 50% RH, 24 hrs | 0.21 | % | ASTM D 570 |
| Mold Shrinkage, flow, 24 hrs | 0.8 – 1.1 | % | ASTM D 955 |
| Mold Shrinkage, xflow, 24 hrs | 0.8 – 1.1 | % | ASTM D 955 |
| Mold Shrinkage, flow, 24 hrs | 0.8 – 1.1 | % | ISO 294 |
| Mold Shrinkage, xflow, 24 hrs | 0.8 – 1.1 | % | ISO 294 |
| Wear Factor Washer | 106 | 10^-10 in^5-min/ft-lb-hr | ASTM D 3702 Modified: Manual |
| Dynamic COF | 0.3 | - | ASTM D 3702 Modified: Manual |
| Static COF | 0.23 | - | ASTM D 3702 Modified: Manual |
| Density | 1.35 | g/cm³ | ISO 1183 |
| Moisture Absorption (23°C / 50% RH) | 0.25 | % | ISO 62 |
| FLAME CHARACTERISTICS (1) | | | |
| UL Yellow Card Link | E207780-101283810 | - | - |
| UL Recognized, 94V-0 Flame Class Rating | 1.7 | 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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