# LNP™ LUBRICOMP™ COMPOUND RA004

RA-1004

## DESCRIPTION

LNP LUBRICOMP RA004 compound is based on Nylon 6/6 resin containing 20% aramid fiber. Added features of this grade include: Wear Resistant.

| GENERAL INFORMATION | |
|---|---|
| **Features** | Wear resistant, No PFAS intentionally added |
| **Fillers** | Aramid Fiber |
| **Polymer Types** | Polyamide 66 (Nylon 66) |
| **Processing Techniques** | Injection Molding |

| INDUSTRY | SUB INDUSTRY |
|---|---|
| Building and Construction | Building Component |
| Consumer | Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance |
| Electrical and Electronics | Mobile Phone - Computer - Tablets |
| Industrial | Electrical |

## TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| **MECHANICAL** [1] | | | |
| **Tensile Strain, break, 5 mm/min** | 3.6 | % | ISO 527 |
| **Tensile Stress, break, 5 mm/min** | 85 | MPa | ISO 527 |
| **Flexural Modulus, 2 mm/min** | 4000 | MPa | ISO 178 |
| **Flexural Stress, break, 2 mm/min** | 122 | MPa | ISO 178 |
| **Tensile Stress, break** | 88 | MPa | ASTM D638 |
| **Tensile Strain, break** | 4.5 | % | ASTM D638 |
| **Flexural Stress** | 137 | MPa | ASTM D790 |
| **Flexural Modulus** | 4410 | MPa | ASTM D790 |
| **IMPACT** [1] | | | |
| **Izod Impact, notched 80*10*4 +23°C** | 5 | kJ/m² | ISO 180/1A |
| **Izod Impact, unnotched 80*10*4 +23°C** | 40 | kJ/m² | ISO 180/1U |
| **Izod Impact, notched, 23°C** | 32 | J/m | ASTM D256 |
| **Izod Impact, unnotched, 23°C** | 368 | J/m | ASTM D4812 |
| **THERMAL** [1] | | | |
| **HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm** | 199 | °C | ISO 75/Af |
| **CTE, 23°C to 60°C, flow** | 6.00E-05 | 1/°C | ISO 11359-2 |
| **CTE, 23°C to 60°C, xflow** | 9.00E-05 | 1/°C | ISO 11359-2 |
| **HDT, 1.82 MPa, 3.2mm, unannealed** | 171 | °C | ASTM D648 |
| **PHYSICAL** [1] | | | |
| **Density** | 1.2 | g/cm³ | ISO 1183 |
| **Density** | 1.23 | g/cm³ | ASTM D792 |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| Mold Shrinkage, flow, 24 hrs [2] | 1.5 | % | ASTM D955 |
| Mold Shrinkage, xflow, 24 hrs [2] | 2 | % | ASTM D955 |
| Dynamic COF | 0.52 | - | ASTM D3702 Modified: Manual |
| Static COF | 0.66 | - | ASTM D3702 Modified: Manual |
| Wear Factor Washer | 59 | 10^-10 in^5-min/ft-lb-hr | ASTM D3702 Modified: Manual |
| INJECTION MOLDING [3] | | | |
| 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 | |

(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) 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.

## ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

## DISCLAIMER