# LNP™ LUBRICOMP™ Compound KL004L

(POM+PTFE) Saudi Basic Industries Corporation (SABIC)

**Product Texts**

LNP LUBRICOMP KL004L compound is based on Acetal (POM) Copolymer resin containing 20% PTFE. Added features of this grade include: Wear Resistant, Low Extractable.

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|---|---|---|---|
| **ASTM Data** | | | |
| Mold Shrinkage, MD | **2** | mm/mm | ASTM D 955 |
| Mold Shrinkage, TD | **2.5** | mm/mm | ASTM D 955 |

| Mechanical properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Tensile Modulus | **2340** | MPa | ISO 527 |
| Yield stress | **48** | MPa | ISO 527 |
| Yield strain | **10.8** | % | ISO 527 |
| Stress at break | **47** | MPa | ISO 527 |
| Strain at break | **20.4** | % | ISO 527 |
| Flexural modulus | **2100** | MPa | ISO 178 |
| Izod impact strength, +23°C, 4mm | **38** | kJ/m² | ISO 180/1U |
| Izod notched impact strength, +23°C, 4mm | **5** | kJ/m² | ISO 180/1A |
| **ASTM Data** | | | |
| Tensile Modulus | **2750** | MPa | ASTM D 638 |
| Tensile Strength at Yield | **47** | MPa | ASTM D 638 |
| Tensile Strength at Break | **47** | MPa | ASTM D 638 |
| Elongation at Yield | **11.4** | % | ASTM D 638 |
| Elongation at Break | **22.3** | % | ASTM D 638 |
| Flexural Modulus | **2070** | MPa | ASTM D 790 |
| Izod Impact notched, 1/8 in | **42** | J/m | ASTM D 256 |
| Izod Impact unnotched, 1/8 in | **672** | J/m | ASTM D 256 |

| Thermal properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Temp. of deflection under load, 1.80 MPa | **83** | °C | ISO 75-1/-2 |
| Temp. of deflection under load, 0.45 MPa | **146** | °C | ISO 75-1/-2 |
| Coeff. of linear therm. expansion, parallel | **117** | E-6/K | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion, normal | **115** | E-6/K | ISO 11359-1/-2 |
| **ASTM Data** | | | |
| DTUL @ 66 psi | **153** | °C | ASTM D 648 |
| DTUL @ 264 psi | **84** | °C | ASTM D 648 |

| Other properties | Value | Unit | Test Standard |
|---|---|---|---|
| Density | **1510** | kg/m³ | ISO 1183 |
| Water Absorption, 24hr | **0.1** | % | ASTM D 570 |
| Density | **1520** | kg/m³ | ASTM D 792 |

| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|---|---|---|---|
| Pre-drying - Temperature | **80** | °C | - |
| Pre-drying - Time | **4** | h | - |
| Melt temperature | **200 - 215** | °C | - |
| Mold temperature | **80 - 110** | °C | - |
| Zone 1 | **175 - 190** | °C | - |
| Zone 2 | **195 - 205** | °C | - |
| Zone 3 | **210 - 220** | °C | - |
| Screw speed | **30 - 60** | rpm | - |
| Back pressure | **0.2 - 0.3** | MPa | - |

**Characteristics**

**Processing**
Injection Molding

**Regional Availability**
North America, Europe, Asia Pacific