

**Product Texts**

LNP LUBRICOMP SP003 compound is based on Nylon 12 resin containing 15% PTFE/silicone. Added features of this grade include: Internally Lubricated, Wear Resistant.

| Processing/Physical Characteristics | Value | Unit  | Test Standard   |
|-------------------------------------|-------|-------|-----------------|
| <b>ISO Data</b>                     |       |       |                 |
| Molding shrinkage, parallel         | 1.0   | %     | ISO 294-4, 2577 |
| Molding shrinkage, normal           | 1.9   | %     | ISO 294-4, 2577 |
| <b>ASTM Data</b>                    |       |       |                 |
| Mold Shrinkage, MD                  | 1     | mm/mm | ASTM D 955      |
| Mold Shrinkage, TD                  | 1.9   | mm/mm | ASTM D 955      |

| Mechanical properties                    | Value | Unit              | Test Standard |
|--|-------|-------------------|---------------|
| <b>ISO Data</b>                          |       |                   |               |
| Tensile Modulus                          | 1580  | MPa               | ISO 527       |
| Yield stress                             | 38    | MPa               | ISO 527       |
| Yield strain                             | 18.4  | %                 | ISO 527       |
| Stress at break                          | 36    | MPa               | ISO 527       |
| Strain at break                          | 32.9  | %                 | ISO 527       |
| Flexural modulus                         | 1300  | MPa               | ISO 178       |
| Flexural strength                        | 44    | MPa               | ISO 178       |
| Izod impact strength, +23°C, 4mm         | 48    | kJ/m <sup>2</sup> | ISO 180/1U    |
| Izod notched impact strength, +23°C, 4mm | 4     | kJ/m <sup>2</sup> | ISO 180/1A    |
| <b>ASTM Data</b>                         |       |                   |               |
| Tensile Modulus                          | 1370  | MPa               | ASTM D 638    |
| Tensile Strength at Yield                | 37    | MPa               | ASTM D 638    |
| Tensile Strength at Break                | 35    | MPa               | ASTM D 638    |
| Elongation at Yield                      | 17.5  | %                 | ASTM D 638    |
| Elongation at Break                      | 23.9  | %                 | ASTM D 638    |
| Flexural Modulus                         | 1370  | MPa               | ASTM D 790    |
| Izod Impact notched, 1/8 in              | 53    | J/m               | ASTM D 256    |
| Izod Impact unnotched, 1/8 in            | 683   | J/m               | ASTM D 256    |

| Thermal properties                       | Value | Unit | Test Standard |
|--|-------|------|---------------|
| <b>ISO Data</b>                          |       |      |               |
| Temp. of deflection under load, 0.45 MPa | 134   | °C   | ISO 75-1/-2   |
| <b>ASTM Data</b>                         |       |      |               |
| DTUL @ 66 psi                            | 150   | °C   | ASTM D 648    |
| DTUL @ 264 psi                           | 146   | °C   | ASTM D 648    |

| Other properties       | Value | Unit              | Test Standard |
|------------------------|-------|-------------------|---------------|
| Density                | 1090  | kg/m <sup>3</sup> | ISO 1183      |
| Water Absorption, 24hr | 0.2   | %                 | ASTM D 570    |
| Density                | 1090  | kg/m <sup>3</sup> | ASTM D 792    |

| Processing Recommendation Injection Molding | Value     | Unit | Test Standard |
|---|-----------|------|---------------|
| Pre-drying - Temperature                    | 80        | °C   | -             |
| Pre-drying - Time                           | 4         | h    | -             |
| Processing humidity                         | ≤0.2      | %    | -             |
| Melt temperature                            | 225 - 240 | °C   | -             |
| Mold temperature                            | 70 - 80   | °C   | -             |
| Zone 1                                      | 215 - 225 | °C   | -             |
| Zone 2                                      | 220 - 230 | °C   | -             |
| Zone 3                                      | 225 - 240 | °C   | -             |
| Screw speed                                 | 30 - 60   | rpm  | -             |
| Back pressure                               | 0.2 - 0.3 | MPa  | -             |

**Characteristics**

**Processing**

Injection Molding

**Regional Availability**

North America

**Applications**

Automotive