# LNP™ LUBRICOMP™ Compound DCP32

(PC+PTFE)-CF10 — Saudi Basic Industries Corporation (SABIC)

**Product Texts**

LNP LUBRICOMP DCP32 compound is based on Polycarbonate (PC) resin containing 15% PTFE/silicone, 10% carbon fiber. Added features of this grade include: Electrically Conductive, Wear Resistant.

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Molding shrinkage, parallel | **0.4** | % | ISO 294-4, 2577 |
| Molding shrinkage, normal | **0.5** | % | ISO 294-4, 2577 |
| **ASTM Data** | | | |
| Mold Shrinkage, MD | **0.4** | mm/mm | ASTM D 955 |
| Mold Shrinkage, TD | **0.5** | mm/mm | ASTM D 955 |

| Mechanical properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Tensile Modulus | **7470** | MPa | ISO 527 |
| Yield stress | **93** | MPa | ISO 527 |
| Yield strain | **2.2** | % | ISO 527 |
| Stress at break | **93** | MPa | ISO 527 |
| Strain at break | **2.2** | % | ISO 527 |
| Flexural modulus | **6700** | MPa | ISO 178 |
| Flexural strength | **142** | MPa | ISO 178 |
| Izod impact strength, +23°C, 4mm | **28** | kJ/m² | ISO 180/1U |
| Izod notched impact strength, +23°C, 4mm | **9** | kJ/m² | ISO 180/1A |
| **ASTM Data** | | | |
| Tensile Modulus | **7580** | MPa | ASTM D 638 |
| Tensile Strength at Yield | **92** | MPa | ASTM D 638 |
| Tensile Strength at Break | **92** | MPa | ASTM D 638 |
| Elongation at Yield | **2.2** | % | ASTM D 638 |
| Elongation at Break | **2.2** | % | ASTM D 638 |
| Flexural Modulus | **6210** | MPa | ASTM D 790 |
| Izod Impact notched, 1/8 in | **90** | J/m | ASTM D 256 |
| Izod Impact unnotched, 1/8 in | **443** | J/m | ASTM D 256 |

| Thermal properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Temp. of deflection under load, 1.80 MPa | **144** | °C | ISO 75-1/-2 |
| Temp. of deflection under load, 0.45 MPa | **148** | °C | ISO 75-1/-2 |
| **ASTM Data** | | | |
| DTUL @ 66 psi | **147** | °C | ASTM D 648 |
| DTUL @ 264 psi | **143** | °C | ASTM D 648 |

| Other properties | Value | Unit | Test Standard |
|---|---|---|---|
| Density | **1300** | kg/m³ | ISO 1183 |
| Water Absorption, 24hr | **0.1** | % | ASTM D 570 |
| Density | **1300** | kg/m³ | ASTM D 792 |

| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|---|---|---|---|
| Pre-drying - Temperature | **120** | °C | - |
| Pre-drying - Time | **4** | h | - |
| Processing humidity | **≤0.02** | % | - |
| Melt temperature | **305 - 325** | °C | - |
| Mold temperature | **80 - 110** | °C | - |
| Zone 1 | **295 - 305** | °C | - |
| Zone 2 | **310 - 320** | °C | - |
| Zone 3 | **320 - 330** | °C | - |
| Screw speed | **30 - 60** | rpm | - |
| Back pressure | **0.2 - 0.3** | MPa | - |

## Characteristics

**Processing**
Injection Molding

**Special Characteristics**
Increased electrical conductivity

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