# LNP™ THERMOCOMP™ Compound RF002ES

PA66-GF10 — Saudi Basic Industries Corporation (SABIC)

**Product Texts**

LNP THERMOCOMP RF002ES compound is based on Nylon 6/6 resin containing 10% glass fiber. Added features of this grade include: Easy Molding, Heat Stabilized.

UL Yellow Card Link E121562-101281596

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Molding shrinkage, parallel | **0.8** | % | ISO 294-4, 2577 |
| Molding shrinkage, normal | **0.9** | % | ISO 294-4, 2577 |
| **ASTM Data** | | | |
| Mold Shrinkage, MD | **0.8** | mm/mm | ASTM D 955 |
| Mold Shrinkage, TD | **0.9** | mm/mm | ASTM D 955 |

| Mechanical properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Tensile Modulus | **5120** | MPa | ISO 527 |
| Yield strain | **2.3** | % | ISO 527 |
| Stress at break | **90** | MPa | ISO 527 |
| Strain at break | **2.3** | % | ISO 527 |
| Flexural modulus | **4280** | MPa | ISO 178 |
| Flexural strength | **131** | MPa | ISO 178 |
| Izod impact strength, +23°C, 4mm | **21** | kJ/m² | ISO 180/1U |
| Izod notched impact strength, +23°C, 4mm | **3** | kJ/m² | ISO 180/1A |
| **ASTM Data** | | | |
| Tensile Modulus | **4850** | MPa | ASTM D 638 |
| Tensile Strength at Break | **87** | MPa | ASTM D 638 |
| Elongation at Break | **2.5** | % | ASTM D 638 |
| Flexural Modulus | **4610** | MPa | ASTM D 790 |
| Flexural Strength | **156** | MPa | ASTM D 790 |
| Izod Impact notched, 1/8 in | **32** | J/m | ASTM D 256 |
| Izod Impact unnotched, 1/8 in | **299** | J/m | ASTM D 256 |

| Thermal properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Temp. of deflection under load, 1.80 MPa | **175** | °C | ISO 75-1/-2 |
| Burning behav. at 1.5 mm nom. thickn. | **HB** | class | IEC 60695-11-10 |
| Thickness tested | **1.5** | mm | - |
| **ASTM Data** | | | |
| DTUL @ 264 psi | **172** | °C | ASTM D 648 |

| Other properties | Value | Unit | Test Standard |
|---|---|---|---|
| Humidity absorption | **1.94** | % | Sim. to ISO 62 |
| Density | **1220** | kg/m³ | ISO 1183 |
| Water Absorption, 24hr | **1.26** | % | ASTM D 570 |
| Density | **1220** | kg/m³ | ASTM D 792 |

| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|---|---|---|---|
| Pre-drying - Temperature | **80** | °C | - |
| Pre-drying - Time | **4** | h | - |
| Processing humidity | **≤0.25** | % | - |
| Melt temperature | **280 - 305** | °C | - |
| Mold temperature | **95 - 110** | °C | - |
| Zone 1 | **265 - 275** | °C | - |
| Zone 2 | **280 - 295** | °C | - |
| Zone 3 | **295 - 305** | °C | - |
| Screw speed | **30 - 60** | rpm | - |
| Back pressure | **0.2 - 0.3** | MPa | - |

## Characteristics

**Processing**
Injection Molding

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