

**LNP™ THERMOCOMP™ Compound LCF62E - Americas**

PEEK-(CF+GF)

Saudi Basic Industries Corporation (SABIC)

**Product Texts**

LNP THERMOCOMP LCF62E compound is based on Polyetheretherketone (PEEK) resin containing 10% carbon fiber and 30% glass fiber. Added features of this grade include: Easy Molding, Electrically Conductive.

| Processing/Physical Characteristics | Value | Unit  | Test Standard |
|-------------------------------------|-------|-------|---------------|
| <b>ASTM Data</b>                    |       |       |               |
| Mold Shrinkage, MD                  | 1.04  | mm/mm | ASTM D 955    |
| Mold Shrinkage, TD                  | 2     | mm/mm | ASTM D 955    |

| Mechanical properties                    | Value | Unit              | Test Standard |
|------------------------------------------|-------|-------------------|---------------|
| <b>ISO Data</b>                          |       |                   |               |
| Tensile Modulus                          | 41100 | MPa               | ISO 527       |
| Stress at break                          | 196   | MPa               | ISO 527       |
| Strain at break                          | 0.7   | %                 | ISO 527       |
| Flexural modulus                         | 36500 | MPa               | ISO 178       |
| Flexural strength                        | 391   | MPa               | ISO 178       |
| Izod impact strength, +23°C, 4mm         | 47    | kJ/m <sup>2</sup> | ISO 180/1U    |
| Izod notched impact strength, +23°C, 4mm | 8     | kJ/m <sup>2</sup> | ISO 180/1A    |
| <b>ASTM Data</b>                         |       |                   |               |
| Tensile Modulus                          | 62980 | MPa               | ASTM D 638    |
| Tensile Strength at Break                | 203   | MPa               | ASTM D 638    |
| Elongation at Break                      | 0.8   | %                 | ASTM D 638    |
| Flexural Modulus                         | 17340 | MPa               | ASTM D 790    |
| Izod Impact notched, 1/8 in              | 80    | J/m               | ASTM D 256    |
| Izod Impact unnotched, 1/8 in            | 711   | J/m               | ASTM D 256    |

| Thermal properties                       | Value | Unit | Test Standard |
|------------------------------------------|-------|------|---------------|
| <b>ISO Data</b>                          |       |      |               |
| Temp. of deflection under load, 1.80 MPa | 290   | °C   | ISO 75-1/-2   |
| Temp. of deflection under load, 0.45 MPa | 290   | °C   | ISO 75-1/-2   |
| <b>ASTM Data</b>                         |       |      |               |
| DTUL @ 66 psi                            | 290   | °C   | ASTM D 648    |
| DTUL @ 264 psi                           | 290   | °C   | ASTM D 648    |

| Other properties       | Value | Unit              | Test Standard  |
|------------------------|-------|-------------------|----------------|
| Humidity absorption    | 0.02  | %                 | Sim. to ISO 62 |
| Water Absorption, 24hr | 0.02  | %                 | ASTM D 570     |
| Density                | 1570  | kg/m <sup>3</sup> | ASTM D 792     |

| Processing Recommendation Injection Molding | Value     | Unit | Test Standard |
|---------------------------------------------|-----------|------|---------------|
| Pre-drying - Temperature                    | 150       | °C   | -             |
| Pre-drying - Time                           | 4 - 6     | h    | -             |
| Mold temperature                            | 175 - 190 | °C   | -             |
| Zone 1                                      | 370 - 380 | °C   | -             |
| Zone 2                                      | 380 - 400 | °C   | -             |
| Zone 3                                      | 380 - 400 | °C   | -             |
| Screw speed                                 | 60 - 100  | rpm  | -             |
| Back pressure                               | 0.3 - 0.7 | MPa  | -             |

**Characteristics****Processing**

Injection Molding

**Regional Availability**

North America

**Special Characteristics**

Increased electrical conductivity