

**Product Texts**

LNP THERMOCOMP LC008E compound is based on Polyetheretherketone (PEEK) resin containing 40% carbon fiber. Added features of this grade include: Easy Molding, Electrically Conductive.

| <b>Processing/Physical Characteristics</b> | <b>Value</b> | <b>Unit</b> | <b>Test Standard</b> |
|--|--------------|-------------|----------------------|
| <b>ISO Data</b>                            |              |             |                      |
| Molding shrinkage, parallel                | 0.1          | %           | ISO 294-4, 2577      |
| Molding shrinkage, normal                  | 0.7          | %           | ISO 294-4, 2577      |
| <b>ASTM Data</b>                           |              |             |                      |
| Mold Shrinkage, MD                         | 0.2          | mm/mm       | ASTM D 955           |
| Mold Shrinkage, TD                         | 0.7          | mm/mm       | ASTM D 955           |

| <b>Mechanical properties</b>             | <b>Value</b> | <b>Unit</b>       | <b>Test Standard</b> |
|--|--------------|-------------------|----------------------|
| <b>ISO Data</b>                          |              |                   |                      |
| Tensile Modulus                          | 30500        | MPa               | ISO 527              |
| Stress at break                          | 242          | MPa               | ISO 527              |
| Strain at break                          | 1.3          | %                 | ISO 527              |
| Flexural modulus                         | 27500        | MPa               | ISO 178              |
| Flexural strength                        | 352          | MPa               | ISO 178              |
| Izod impact strength, +23°C, 4mm         | 40           | kJ/m <sup>2</sup> | ISO 180/1U           |
| Izod notched impact strength, +23°C, 4mm | 5            | kJ/m <sup>2</sup> | ISO 180/1A           |
| <b>ASTM Data</b>                         |              |                   |                      |
| Tensile Modulus                          | 33090        | MPa               | ASTM D 638           |
| Tensile Strength at Break                | 240          | MPa               | ASTM D 638           |
| Elongation at Break                      | 1.3          | %                 | ASTM D 638           |
| Flexural Modulus                         | 26880        | MPa               | ASTM D 790           |
| Flexural Strength                        | 365          | MPa               | ASTM D 790           |
| Izod Impact notched, 1/8 in              | 58           | J/m               | ASTM D 256           |
| Izod Impact unnotched, 1/8 in            | 704          | J/m               | ASTM D 256           |

| <b>Thermal properties</b>                | <b>Value</b> | <b>Unit</b> | <b>Test Standard</b> |
|--|--------------|-------------|----------------------|
| <b>ISO Data</b>                          |              |             |                      |
| Temp. of deflection under load, 1.80 MPa | 326          | °C          | ISO 75-1/-2          |
| Temp. of deflection under load, 0.45 MPa | 338          | °C          | ISO 75-1/-2          |
| <b>ASTM Data</b>                         |              |             |                      |
| DTUL @ 66 psi                            | 338          | °C          | ASTM D 648           |
| DTUL @ 264 psi                           | 322          | °C          | ASTM D 648           |

| <b>Other properties</b> | <b>Value</b> | <b>Unit</b>       | <b>Test Standard</b> |
|-------------------------|--------------|-------------------|----------------------|
| Density                 | 1470         | kg/m <sup>3</sup> | ISO 1183             |
| Density                 | 1470         | kg/m <sup>3</sup> | ASTM D 792           |

| <b>Processing Recommendation Injection Molding</b> | <b>Value</b> | <b>Unit</b> | <b>Test Standard</b> |
|--|--------------|-------------|----------------------|
| 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