# LNP™ THERMOCOMP™ COMPOUND LX08411

LX08411

## DESCRIPTION

LNP THERMOCOMP LX08411 compound is based on Polyetheretherketone (PEEK) resin containing 45% carbon fiber. Added features of this grade include: Electrically Conductive, High Modulus, Easy Molding.

| GENERAL INFORMATION | |
|---|---|
| **Features** | Electrically Conductive, Good Processability, Carbon fiber filled, High stiffness/Strength, High temperature resistance |
| **Fillers** | Carbon Fiber |
| **Polymer Types** | Polyetheretherketone (PEEK) |
| **Processing Techniques** | Injection Molding |

| INDUSTRY | SUB INDUSTRY |
|---|---|
| Consumer | Commercial Appliance |
| Electrical and Electronics | Electronic Components, Mobile Phone - Computer - Tablets |
| Industrial | Electrical, Material Handling |

## TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| **MECHANICAL** [1] | | | |
| **Tensile Stress, yld, Type I, 5 mm/min** | 270 | MPa | ASTM D638 |
| **Tensile Stress, brk, Type I, 5 mm/min** | 270 | MPa | ASTM D638 |
| **Tensile Strain, yld, Type I, 5 mm/min** | 1.8 | % | ASTM D638 |
| **Tensile Strain, brk, Type I, 5 mm/min** | 1.8 | % | ASTM D638 |
| **Tensile Modulus, 50 mm/min** | 23510 | MPa | ASTM D638 |
| **Flexural Stress, yld, 1.3 mm/min, 50 mm span** | 366 | MPa | ASTM D790 |
| **Flexural Stress, brk, 1.3 mm/min, 50 mm span** | 366 | MPa | ASTM D790 |
| **Flexural Modulus, 1.3 mm/min, 50 mm span** | 25000 | MPa | ASTM D790 |
| **IMPACT** [1] | | | |
| **Izod Impact, unnotched, 23°C** | 775 | J/m | ASTM D4812 |
| **Izod Impact, notched, 23°C** | 70 | J/m | ASTM D256 |
| **THERMAL** [1] | | | |
| **HDT, 0.45 MPa, 3.2 mm, unannealed** | 341 | °C | ASTM D648 |
| **HDT, 1.82 MPa, 3.2mm, unannealed** | 327 | °C | ASTM D648 |
| **PHYSICAL** [1] | | | |
| **Density** | 1.45 | g/cm³ | ASTM D792 |
| **Moisture Absorption, (23°C/50% RH/24 hrs)** | 0.03 | % | ASTM D570 |
| **Mold Shrinkage, flow, 24 hrs** [2] | 0.2 – 0.28 | % | ASTM D955 |
| **Mold Shrinkage, xflow, 24 hrs** [2] | 0.75 – 0.85 | % | ASTM D955 |
| **INJECTION MOLDING** [3] | | | |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| Drying Temperature | 150 | °C | |
| Drying Time | 4 – 6 | Hrs | |
| Front - Zone 3 Temperature | 380 – 400 | °C | |
| Middle - Zone 2 Temperature | 380 – 400 | °C | |
| Rear - Zone 1 Temperature | 370 – 380 | °C | |
| Mold Temperature | 175 – 190 | °C | |
| Back Pressure | 0.3 – 0.7 | MPa | |
| Screw Speed | 60 – 100 | rpm | |

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

## DISCLAIMER