# LNP™ THERMOCOMP™ COMPOUND LX03447

PDX-L-03447

## DESCRIPTION

LNP THERMOCOMP LX03447 is a compound based on Polyetheretherketone containing Proprietary Filler(s).

## TYPICAL PROPERTY VALUES

Revision 20191216

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, brk, Type I, 5 mm/min | 248 | MPa | ASTM D 638 |
| Tensile Strain, brk, Type I, 5 mm/min | 1.6 | % | ASTM D 638 |
| Tensile Modulus, 50 mm/min | 28540 | MPa | ASTM D 638 |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 370 | MPa | ASTM D 790 |
| Flexural Stress, brk, 1.3 mm/min, 50 mm span | 365 | MPa | ASTM D 790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 23700 | MPa | ASTM D 790 |
| Tensile Stress, break, 5 mm/min | 246 | MPa | ISO 527 |
| Tensile Strain, break, 5 mm/min | 1.5 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 28350 | MPa | ISO 527 |
| Flexural Stress | 360 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 23800 | MPa | ISO 178 |
| IMPACT | | | |
| Izod Impact, unnotched, 23°C | 771 | J/m | ASTM D 4812 |
| Izod Impact, notched, 23°C | 70 | J/m | ASTM D 256 |
| Multiaxial Impact | 3 | J | ISO 6603 |
| Instrumented Impact Total Energy, 23°C | 7 | J | ASTM D 3763 |
| Izod Impact, unnotched 80*10*4 +23°C | 45 | kJ/m² | ISO 180/1U |
| Izod Impact, notched 80*10*4 +23°C | 6 | kJ/m² | ISO 180/1A |
| THERMAL | | | |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 337 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 325 | °C | ASTM D 648 |
| CTE, -30°C to 30°C, flow | 9.E+00 | 1/°C | ASTM D 696 |
| CTE, -30°C to 30°C, xflow | 3.89E+01 | 1/°C | ASTM D 696 |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm | 335 | °C | ISO 75/Bf |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 318 | °C | ISO 75/Af |
| PHYSICAL | | | |
| Density | 1.43 | g/cm³ | ASTM D 792 |
| Moisture Absorption, 50% RH, 24 hrs | 0.05 | % | ASTM D 570 |
| Mold Shrinkage, flow, 24 hrs | 0.1 – 3 | % | ASTM D 955 |
| Mold Shrinkage, xflow, 24 hrs | 0.7 – 0.9 | % | ASTM D 955 |
| Moisture Absorption (23°C / 50% RH) | 0.07 | % | ISO 62 |
| INJECTION MOLDING | | | |
| Drying Temperature | 150 | °C | |
| Drying Time | 4 – 6 | hrs | |

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| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| 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 | |

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