# LNP™ THERMOCOMP™ COMPOUND EC008PXQ

EC008PXQ

## DESCRIPTION

LNP* THERMOCOMP* EC008PXQ is a compound based on Polyetherimide containing 40% Carbon Fiber. Added features include: Electrically Conductive, Exceptional Processing, FAR25.853 Compliant.

## TYPICAL PROPERTY VALUES

Revision 20191213

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, brk, Type I, 5 mm/min | 272 | MPa | ASTM D 638 |
| Tensile Strain, brk, Type I, 5 mm/min | 1 | % | ASTM D 638 |
| Tensile Modulus, 5 mm/min | 38600 | MPa | ASTM D 638 |
| Flexural Stress, brk, 1.3 mm/min, 50 mm span | 372 | MPa | ASTM D 790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 32600 | MPa | ASTM D 790 |
| Hardness, Rockwell M | 112 | - | ASTM D 785 |
| Tensile Stress, break, 5 mm/min | 247 | MPa | ISO 527 |
| Tensile Strain, break, 5 mm/min | 0.9 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 35480 | MPa | ISO 527 |
| Flexural Stress, break, 2 mm/min | 364 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 30560 | MPa | ISO 178 |
| Compressive Strength | 222 | MPa | SABIC method |
| Shear Modulus | 4656 | MPa | ASTM D732 |
| Shear Strength | 120 | MPa | ASTM D732 |
| IMPACT | | | |
| Izod Impact, unnotched, 23°C | 597 | J/m | ASTM D 4812 |
| Izod Impact, notched, 23°C | 74 | J/m | ASTM D 256 |
| Instrumented Impact Total Energy, 23°C | 7 | J | ASTM D 3763 |
| Izod Impact, unnotched 80*10*4 +23°C | 33 | kJ/m² | ISO 180/1U |
| Izod Impact, notched 80*10*4 +23°C | 6 | kJ/m² | ISO 180/1A |
| THERMAL | | | |
| HDT, 1.82 MPa, 3.2mm, unannealed | 193 | °C | ASTM D 648 |
| CTE, -40°C to 150°C, flow | 2.7E-06 | 1/°C | ASTM E 831 |
| CTE, -40°C to 150°C, xflow | 3.6E-05 | 1/°C | ASTM E 831 |
| PHYSICAL | | | |
| Specific Gravity | 1.44 | - | ASTM D 792 |
| Density | 1.43 | g/cm³ | ASTM D 792 |
| Moisture Absorption, 50% RH, 24 hrs | 0.11 | % | ASTM D 570 |
| Mold Shrinkage, flow, 24 hrs | 0.01 – 0.05 | % | ASTM D 955 |
| Mold Shrinkage, xflow, 24 hrs | 0.1 – 0.5 | % | ASTM D 955 |
| Melt Flow Rate, 380°C/6.7 kgf | 15 | g/10 min | ASTM D 1238 |
| Poisson's Ratio | 0.4 | - | ASTM E 132 |
| ELECTRICAL | | | |
| Volume Resistivity | 4.5E+02 | Ohm-cm | ASTM D 257 |

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| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| Surface Resistivity | 4.1E+03 | Ohm | ASTM D 257 |
| INJECTION MOLDING | | | |
| Drying Temperature | 120 – 150 | °C | |
| Drying Time | 4 | hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 380 – 400 | °C | |
| Front - Zone 3 Temperature | 380 – 400 | °C | |
| Middle - Zone 2 Temperature | 380 – 400 | °C | |
| Rear - Zone 1 Temperature | 380 – 400 | °C | |
| Mold Temperature | 165 – 180 | °C | |
| Back Pressure | 0.3 – 0.7 | MPa | |
| Screw Speed | 50 – 100 | rpm | |
| Injection Speed | 40 – 70 | mm/s | |

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