# LNP™ THERMOCOMP™ COMPOUND EC008PXQ

EC008PXQ

## DESCRIPTION

LNP THERMOCOMP EC008PXQ compound is based on Polyetherimide (PEI) resin containing 40% carbon fiber. Added features of this grade include: Electrically Conductive, Exceptional Processing, FAR25.853 Compliant.

| GENERAL INFORMATION | |
|---|---|
| **Features** | Flame Retardant, Electrically Conductive, High Flow, Carbon fiber filled, High stiffness/Strength, High temperature resistance, No PFAS intentionally added |
| **Fillers** | Carbon Fiber |
| **Polymer Types** | Polyetherimide (PEI) |
| **Processing Techniques** | Injection Molding |

| INDUSTRY | SUB INDUSTRY |
|---|---|
| Automotive | Automotive Under the Hood, Aerospace |
| Building and Construction | Building Component |
| Consumer | Sport/Leisure |
| Industrial | Electrical |

## TYPICAL PROPERTY VALUES

Revision 20260424

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL [1] | | | |
| **Tensile Stress, brk, Type I, 5 mm/min** | 272 | MPa | ASTM D638 |
| **Tensile Strain, brk, Type I, 5 mm/min** | 1 | % | ASTM D638 |
| **Tensile Modulus, 5 mm/min** | 38600 | MPa | ASTM D638 |
| **Flexural Stress, brk, 1.3 mm/min, 50 mm span** | 372 | MPa | ASTM D790 |
| **Flexural Modulus, 1.3 mm/min, 50 mm span** | 32600 | MPa | ASTM D790 |
| **Hardness, Rockwell M** | 112 | - | ASTM D785 |
| **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 [1] | | | |
| **Izod Impact, unnotched, 23°C** | 597 | J/m | ASTM D4812 |
| **Izod Impact, notched, 23°C** | 74 | J/m | ASTM D256 |
| **Instrumented Dart Impact Total Energy, 23°C** | 7 | J | ASTM D3763 |
| **Izod Impact, unnotched 80*10*4 +23°C** | 33 | kJ/m² | ISO 180/1U |

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| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| Izod Impact, notched 80*10*4 +23°C | 6 | kJ/m² | ISO 180/1A |
| THERMAL [1] | | | |
| HDT, 1.82 MPa, 3.2mm, unannealed | 193 | °C | ASTM D648 |
| CTE, -40°C to 150°C, flow | 2.7E-06 | 1/°C | ASTM E831 |
| CTE, -40°C to 150°C, xflow | 3.6E-05 | 1/°C | ASTM E831 |
| PHYSICAL [1] | | | |
| Specific Gravity | 1.44 | - | ASTM D792 |
| Density | 1.43 | g/cm³ | ASTM D792 |
| Moisture Absorption, (23°C/50% RH/24 hrs) | 0.11 | % | ASTM D570 |
| Mold Shrinkage, flow, 24 hrs [2] | 0.1 – 0.3 | % | ASTM D955 |
| Mold Shrinkage, xflow, 24 hrs [2] | 0.1 – 0.5 | % | ASTM D955 |
| Melt Flow Rate | | | |
| 380°C/6.7 kgf | 15 | g/10 min | ASTM D1238 |
| Poisson's Ratio | 0.4 | - | ASTM E132 |
| ELECTRICAL [1] | | | |
| Volume Resistivity | 4.5E+02 | Ω.cm | ASTM D257 |
| Surface Resistivity | 4.1E+03 | Ω | ASTM D257 |
| INJECTION MOLDING [3] | | | |
| Drying Temperature | 150 | °C | |
| Drying Time | 4 – 6 | Hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 360 – 400 | °C | |
| Rear - Zone 1 Temperature | 360 – 380 | °C | |
| Middle - Zone 2 Temperature | 370 – 390 | °C | |
| Front - Zone 3 Temperature | 380 – 400 | °C | |
| Nozzle Temperature | 390 – 400 | °C | |
| Mold Temperature | 140 – 180 | °C | |
| Back Pressure | 0.3 – 0.7 | MPa | |
| Screw speed (Circumferential speed) | 0.2 – 0.3 | m/s | |
| Vent Depth | 0.025 – 0.076 | mm | |

(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.

## MORE INFORMATION

For curve data and CAE cards, please visit and register at https://materialfinder.sabic-specialties.com

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