# KetaSpire® KT-880SFP
## polyetheretherketone

KetaSpire® KT-880SFP is the high flow grade of unreinforced polyetheretherketone (PEEK) supplied in a natural-color super-fine powder form. This super-fine PEEK powder is suitable for water borne coatings, electrostatically driven powder coatings, and resin pre-impregnation of continuous fiber composites. This super-fine powder is produced to a median particle size D50 of about 30 micrometers.

KetaSpire® PEEK is produced to the highest industry standards and is characterized by a distinct combination of properties, which include excellent chemical resistance to acids, bases and a broad range of aggressive organic chemicals, best in class fatigue resistance, high thermal resistance, high purity and ease of melt processing.

These properties make KT-880SFP well-suited for applications in health care, transportation, electronics, chemical processing and other industrial uses.

The resin is also available in a natural-colored pellet form under the grade name KT-880 NT for injection molding applications.

| General | | |
|---|---|---|
| Material Status | • Commercial: Active | |
| Availability | • Africa & Middle East<br>• Asia Pacific<br>• Europe | • Latin America<br>• North America |
| Features | • Chemical Resistant<br>• Ductile<br>• Fatigue Resistant<br>• Flame Retardant | • Good Dimensional Stability<br>• Good Impact Resistance<br>• High Heat Resistance |
| Uses | • Aerospace Applications<br>• Automotive Applications<br>• Electrical/Electronic Applications | • Industrial Applications<br>• Oil/Gas Applications |
| RoHS Compliance | • Contact Manufacturer | |
| Appearance | • Natural Color | |
| Forms | • Powder | |
| Processing Method | • Electrostatic Spray Coating | • Water-borne Coating |

| Physical | Typical Value | Unit | Test method |
|---|---|---|---|
| Density / Specific Gravity | 1.30 | | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (400°C/2.16 kg) | 36 | g/10 min | ASTM D1238 |
| Water Absorption (24 hr) | 0.10 | % | ASTM D570 |
| Particle Size | | | |
| D50 | 30.0 | µm | |
| D90 | 55.0 | µm | |
| D99 | 120 | µm | |

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| Mechanical | Typical Value | Unit | Test method |
|---|---|---|---|
| Tensile Modulus | 3650 | MPa | ASTM D638 |
| Tensile Strength | 100 | MPa | ASTM D638 |
| Tensile Elongation | | | ASTM D638 |
| Yield | 5.2 | % | |
| Break[1] | 10 to 20 | % | |
| Flexural Modulus | 3790 | MPa | ASTM D790 |
| Flexural Strength | 153 | MPa | ASTM D790 |

| Impact | Typical Value | Unit | Test method |
|---|---|---|---|
| Notched Izod Impact | 53 | J/m | ASTM D256 |
| Unnotched Izod Impact | No Break | | ASTM D4812 |

| Thermal | Typical Value | Unit | Test method |
|---|---|---|---|
| Deflection Temperature Under Load | | | ASTM D648 |
| 1.8 MPa, Unannealed | 160 | °C | |
| Glass Transition Temperature | 147 | °C | ASTM D3417 |
| Melting Temperature | 343 | °C | ASTM D3417 |
| CLTE - Flow (-50 to 50°C) | 5.0E-5 | cm/cm/°C | ASTM E831 |

| Fill Analysis | Typical Value | Unit | Test method |
|---|---|---|---|
| Melt Viscosity (400°C, 1000 sec^-1) | 150 | Pa·s | ASTM D3835 |

| Injection Notes |
|---|
| Back Pressure: minimum |

## Notes

Typical properties: these are not to be construed as specifications.

[1] Tensile test speed = 2 in/min (50 mm/min)

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