

KetaSpire® KT-820UFP

Polyetheretherketone

Solvay Specialty Polymers

Message:

KetaSpire® KT-820UFP is the low flow grade of unreinforced polyetheretherketone (PEEK) supplied in a natural-colored, ultra-fine powder form. This ultra-fine PEEK powder is suitable for water-borne coatings, electrostatically driven powder coatings and resin pre-impregnation of continuous fiber composites. This ultra-fine powder is produced to a median particle size D50 of about 10 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-820UFP well-suited for applications in healthcare, transportation, electronics, chemical processing and other industrial uses. The resin is also available in a natural-colored pellet form under the grade name KT-820 NT for injection molding and extrusion.

| General Information | |
|---------------------|---|
| Features | Good dimensional stability Impact resistance, good Good chemical resistance Fatigue resistance Heat resistance, high ductility Flame retardancy |
| Uses | Electrical/Electronic Applications Industrial application Aerospace applications Application in Automobile Field Oil/Gas Supplies |
| RoHS Compliance | Contact manufacturer |
| Appearance | Natural color |
| Forms | Powder |
| Processing Method | Water-borne Coating Electrostatic jet coating |

| Physical | Nominal Value | Unit | Test Method |
|--------------------------|---------------|-------------------|-------------|
| Specific Gravity | 1.30 | g/cm ³ | ASTM D792 |
| Water Absorption (24 hr) | 0.10 | % | ASTM D570 |
| Particle Size | | | |
| D50 | 10.0 | µm | |
| D90 | 16.0 | µm | |
| D99 | 26.0 | µm | |
| Mechanical | Nominal Value | Unit | Test Method |

| Tensile Modulus | 3650 | MPa | ASTM D638 |
|---|---------------|----------|-------------|
| Tensile Strength | 96.5 | MPa | ASTM D638 |
| Tensile Elongation | | | ASTM D638 |
| Yield | 5.2 | % | ASTM D638 |
| Fracture ¹ | 20 - 30 | % | ASTM D638 |
| Flexural Modulus | 3860 | MPa | ASTM D790 |
| Flexural Strength | 152 | MPa | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact | 69 | J/m | ASTM D256 |
| Unnotched Izod Impact | No Break | | ASTM D256 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 157 | °C | ASTM D648 |
| Glass Transition Temperature | 150 | °C | ASTM D3417 |
| Melting Temperature | 340 | °C | ASTM D3417 |
| CLTE - Flow (-50 to 50°C) | 4.3E-5 | cm/cm/°C | ASTM E831 |
| Injection instructions | | | |
| Back Pressure: minimum | | | |
| NOTE | | | |

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

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