

## Solvay Specialty Polymers KetaSpire<sup>®</sup> KT-810FP Polyetheretherketone (PEEK)

Category : Polymer , Thermoplastic , Polyketone , Polyetheretherketone (PEEK)

### Material Notes:

KetaSpire<sup>®</sup> KT-810FP is the fine powder form of KT-810 resin. KT-810 is an ultra-high molecular weight natural PEEK resin having a melt viscosity ranging from 0.51-0.65 kPa-s as compared to 0.38-0.50 kPa-s for standard high-viscosity PEEK grades such as KT-820 and its fine powder analog KT-820FP. KetaSpire<sup>®</sup> PEEK is produced to the highest industry standards and is characterized by a distinct combination of properties, which include excellent chemical resistance to organics, acids and bases; exceptional retention of mechanical properties up to 300<sup>°</sup>C (572<sup>°</sup>F); best-in-class fatigue resistance; excellent wear resistance; ease of melt processing; and high purity. The KT-810 grade achieves a greater level of mechanical toughness than previously possible with PEEK, yet it is still processable by conventional methods including extrusion, injection molding, and compression molding. Features: Autoclave Sterilizable; Ductile; E-beam Sterilizable; Ethylene Oxide Sterilizable; Fatigue Resistant; Flame Retardant; Good Chemical Resistance; Good Dimensional Stability; Good Impact Resistance; Good Sterilizability; Heat Sterilizable; High Heat Resistance; Radiation (Gamma) Resistant; Radiation Sterilizable; Radiotranslucent; Steam Resistant; Steam Sterilizable Uses: Aircraft Applications; Automotive Applications; Connectors; Dental Applications; Electrical/Electronic Applications; Film; Gears; Hospital Goods; Housings; Industrial Applications; Medical Devices; Medical/Healthcare Applications; Oil/Gas Applications; Pump Parts; Seals; Surgical Instruments; Tubing Additional Properties: Particle Size - 0.00 %; Particle Size - < 2.00 % Information provided by Solvay Specialty Polymers.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Solvay-Specialty-Polymers-KetaSpire-KT-810FP-Polyetheretherketone-PEEK.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-KetaSpire-KT-810FP-Polyetheretherketone-PEEK.php)

| Physical Properties | Metric  | English   | Comments                   |
|---------------------|---|---|----------------------------|
| Density             | 1.29 g/cc   | 0.0466 lb/in <sup>3</sup>   | ASTM D792                  |
| Water Absorption    | 0.10 %<br>@Time 86400 sec   | 0.10 %<br>@Time 24.0 hour   | ISO 62                     |
| Viscosity           | 510000 - 650000 cP<br>@Shear Rate 1000 1/s,<br>Temperature 400 <sup>°</sup> C | 510000 - 650000 cP<br>@Shear Rate 1000 1/s,<br>Temperature 752 <sup>°</sup> F | Melt Viscosity; ASTM D3835 |

| Mechanical Properties   | Metric    | English   | Comments  |
|-------------------------|-----------|-----------|-----------|
| Tensile Strength, Yield | 94.5 MPa  | 13700 psi | ASTM D638 |
| Elongation at Break     | 25 - 50 % | 25 - 50 % | ASTM D638 |
| Elongation at Yield     | 5.2 %     | 5.2 %     | ASTM D638 |
| Tensile Modulus         | 3.50 GPa  | 508 ksi   | ASTM D638 |
| Flexural Strength       | 145 MPa   | 21000 psi | ASTM D790 |
| Flexural Modulus        | 3.70 GPa  | 537 ksi   | ASTM D790 |

| Izod Impact Notched<br>Mechanical Properties | 1.00 J/cm<br>Metric | 1.87 ft-lb/in<br>English | ASTM D256<br>Comments |
|--|---------------------|--------------------------|-----------------------|
| Izod Impact, Unnotched                       | NB                  | NB                       | ASTM D256             |

| Thermal Properties                             | Metric                        | English                        | Comments            |
|--|-------------------------------|--------------------------------|---------------------|
| Deflection Temperature at 1.8 MPa<br>(264 psi) | 157 Å°C<br>@Thickness 3.20 mm | 315 Å°F<br>@Thickness 0.126 in | Annealed; ASTM D648 |

| Descriptive Properties | Value  | Comments |
|------------------------|--|----------|
| Additive               | Lubricant  |          |
| Agency Ratings         | ISO 10993; ISO 10993-Part 1                              |          |
| Availability           | Africa & Middle East                                     |          |
|                        | Asia Pacific   |          |
|                        | Europe   |          |
|                        | Latin America  |          |
|                        | North America  |          |
| Color                  | Natural  |          |
| Form                   | Powder   |          |
| Processing Technique   | Compression Molding; Extrusion Blow Molding              |          |
|                        | Film Extrusion; Injection Molding; Machining             |          |
|                        | Profile Extrusion; Thermoforming; Wire & Cable Extrusion |          |
| RoHS Compliance        | RoHS Compliant   |          |

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China