

# KetaSpire® KT-880 GF20

Polyetheretherketone

Solvay Specialty Polymers

## Message:

KetaSpire® KT-880 GF20 is a high flow, 20% glass-fiber reinforced grade of polyetheretherketone (PEEK). This resin offers higher strength and stiffness properties relative to unreinforced KetaSpire® PEEK resin. The glass fiber content is optimized to provide a balance of strength and stiffness with toughness-related properties, such as impact resistance and elongation at break. This level of reinforcement also affords greater mechanical robustness in structural applications, particularly those with service temperatures approaching 300°C (572°F).

KetaSpire® PEEK is produced to the highest industry standards and is characterized by a distinct combination of properties, which include excellent wear resistance, best-in-class fatigue resistance, ease of melt processing, high purity and excellent chemical resistance to organics, acids and bases. These properties make it well-suited for applications in healthcare, transportation, electronics, chemical processing and other industrial uses.

| General Information    |  |
|------------------------|--|
| Filler / Reinforcement | Glass Fiber,20% Filler by Weight   |
| Features               | Autoclave Sterilizable<br>Biocompatible<br>E-beam Sterilizable<br>Ethylene Oxide Sterilizable<br>Fatigue Resistant<br>Flame Retardant<br>Good Chemical Resistance<br>Good Dimensional Stability<br>Good Sterilizability<br>Heat Sterilizable<br>High Flow<br>High Heat Resistance<br>High Stiffness<br>High Strength<br>Radiation (Gamma) Resistant<br>Radiation Sterilizable<br>Radiotranslucent<br>Steam Resistant<br>Steam Sterilizable |
| Uses                   | Aircraft Applications<br>Automotive Applications<br>Connectors<br>Dental Applications<br>Electrical/Electronic Applications<br>Film<br>Hospital Goods<br>Industrial Applications   |

Medical Devices  
 Medical/Healthcare Applications  
 Oil/Gas Applications  
 Pump Parts  
 Seals  
 Surgical Instruments

| RoHS Compliance                  | Contact Manufacturer |                   |                |
|----------------------------------|----------------------|-------------------|----------------|
| Appearance                       | Tan                  |                   |                |
| Forms                            | Pellets              |                   |                |
| Processing Method                | Injection Molding    |                   |                |
| Physical                         | Nominal Value        | Unit              | Test Method    |
| Density                          | 1.46                 | g/cm <sup>3</sup> | ISO 1183       |
| Water Absorption (24 hr)         | 0.022                | %                 | ISO 15512      |
| Ash Content                      | 20                   | %                 | ISO 3451-1     |
| Modulus of Elasticity            | 8.24                 | GPa               | ISO 527        |
| Mechanical                       | Nominal Value        | Unit              | Test Method    |
| Tensile Stress (Break)           | 162                  | MPa               | ISO 527-2      |
| Tensile Strain (Break)           | 3.5                  | %                 | ISO 527-2/1A/5 |
| Flexural Modulus                 | 7720                 | MPa               | ISO 178        |
| Flexural Stress                  | 238                  | MPa               | ISO 178        |
| Impact                           | Nominal Value        | Unit              | Test Method    |
| Charpy Unnotched Impact Strength | 60                   | kJ/m <sup>2</sup> | ISO 179        |
| Notched Izod Impact Strength     | 6.0                  | kJ/m <sup>2</sup> | ISO 180        |
| Thermal                          | Nominal Value        | Unit              | Test Method    |
| Melting Temperature <sup>1</sup> | 345                  | °C                | ISO 11357      |
| Injection                        | Nominal Value        | Unit              |                |
| Drying Temperature               | 150                  | °C                |                |
| Drying Time                      | 4.0                  | hr                |                |
| Rear Temperature                 | 365                  | °C                |                |
| Middle Temperature               | 371                  | °C                |                |
| Front Temperature                | 377                  | °C                |                |
| Nozzle Temperature               | 382                  | °C                |                |
| Mold Temperature                 | 177 to 204           | °C                |                |
| Injection Rate                   | Fast                 |                   |                |
| Screw Compression Ratio          | 2.5:1.0 to 3.5:1.0   |                   |                |

**NOTE**

1. DSC First heat

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