

# KetaSpire® CF10 HC AM Filament

## polyetheretherketone

KetaSpire® CF10 HC AM Filament incorporates 10% carbon fiber reinforcement into a PEEK matrix for increased strength offered for use in high-performance healthcare applications. This material provides long-term performance

up to 240 °C, including exceptional chemical resistance. These properties make it particularly suited for metal replacement.

### General

Material Status	• Commercial: Active
Availability	<ul style="list-style-type: none"> <li>• Africa &amp; Middle East</li> <li>• Asia Pacific</li> <li>• Europe</li> <li>• Latin America</li> <li>• North America</li> </ul>
Filler / Reinforcement	• Carbon Fiber, 10% Filler by Weight
Features	<ul style="list-style-type: none"> <li>• Biocompatible</li> <li>• Chemical Resistant</li> <li>• Ductile</li> <li>• Flame Retardant</li> <li>• Good Dimensional Stability</li> <li>• Good Impact Resistance</li> <li>• High Heat Resistance</li> <li>• High Strength</li> </ul>
Uses	<ul style="list-style-type: none"> <li>• Medical Devices</li> <li>• Medical/Healthcare Applications</li> </ul>
Agency Ratings	• ISO 10993
RoHS Compliance	• Contact Manufacturer
Appearance	• Black
Forms	• Filament
Processing Method	• 3D Printing, Fused Filament Fabrication (FFF)

Physical	Typical Value	Unit	Test method
Density / Specific Gravity	1.33		ASTM D792

Mechanical	Typical Value	Unit	Test method
Tensile Modulus	11000	MPa	ASTM D638
Tensile Strength (Break)	140	MPa	ASTM D638
Tensile Elongation (Break)	1.7	%	ASTM D638

Impact	Typical Value	Unit	Test method
Notched Izod Impact	89	J/m	ASTM D256

Thermal	Typical Value	Unit	Test method
Melting Temperature	343	°C	ASTM D3418

Additional Information	Typical Value	Unit
Diameter - Filament	1.75	mm

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Printing conditions for above data table:

- Filament drying conditions, minimum temperature 4h: 150°C
- Extruder temperature: 390-450°C
- Bed temperature: >200°C
- Printing tool path: 0°

Test specimen parameters:

- First layer: 0.3mm thick
  - Subsequent layers: 0.1mm
  - 100% infill
  - 3 shells
  - Printing speed: 18 mm/s
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## Notes

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

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