KetaSpire® KT-820 GF15
polyetheretherketone

KetaSpire® KT-820 GF15 is a low flow, 15% 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. The low fiberglass loading gives the resin improved surface aesthetics and reduced anisotropy over comparable 30% glass reinforced formulations.

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 oil & gas, healthcare, transportation, electronics, chemical processing and other industrial uses.

- Natural: KT-820 GF15 NT

General

Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight	
Features	• Autoclave Sterilizable • Biocompatible • Chemical Resistant • E-beam Sterilizable • Ethylene Oxide Sterilizable • Fatigue Resistant • Flame Retardant • Good Dimensional Stability • Good Sterilizability • Heat Sterilizable	• High Flow • High Heat Resistance • High Stiffness • High Strength • Radiation (Gamma) Resistant • Radiation Sterilizable • Radiotranslucent • Steam Resistant • Steam Sterilizable
Uses	• Aircraft Applications • Automotive Applications • Connectors • Dental Applications • Electrical/Electronic Applications • Film • Hospital Goods	• 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	

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Physical	Typical Value	Unit	Test method
Density / Specific Gravity	1.40		ASTM D792
Ash Content	15	%	ISO 3451-1

Mechanical	Typical Value	Unit	Test method
Tensile Modulus	6200	MPa	ASTM D638
Tensile Stress (Break)	124	MPa	ASTM D638
Tensile Strain [1] (Break)	5.0	%	ASTM D638
Flexural Stress	205	MPa	ASTM D638
Modulus of Elasticity	6.10	GPa	ASTM D638

Impact	Typical Value	Unit	Test method
Charpy Notched Impact Strength	9.5	kJ/m²	ISO 179
Charpy Unnotched Impact Strength	85	kJ/m²	ISO 179
Notched Izod Impact Strength	9.0	kJ/m²	ISO 180
Unnotched Izod Impact Strength	74	kJ/m²	ISO 180

Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Unannealed	218	°C	

Injection	Typical 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	

Notes

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

[1] Type 1A, 5 mm/min

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