KetaSpire® KT-880 FW30

Polyetheretherketone

Solvay Specialty Polymers

Message:

KetaSpire KT-880 CF30 is a high fluidity, 30% carbon fiber reinforced polyether ether ketone (PEEK). When the temperature is close to 300 °C, the mechanical properties of carbon fiber reinforced KetaSpire PEEK reach the highest level in the industry and have the lowest linear thermal expansion coefficient of KetaSpire product series. KetaSpire PEEK is processed according to the highest industry standards and is characterized by various excellent properties, including excellent wear resistance, first-class fatigue resistance, easy melt processing, high purity, excellent resistance to organic matter, acids and alkalis and other chemicals. These characteristics make it very suitable for medical care, transportation, electronics, chemical processing and other industrial applications.

General Information	
Filler / Reinforcement	Carbon fiber reinforced material, 30% filler by weight
Features	Good dimensional stability
	Electron beam disinfection
	Radiation disinfection
	Rigidity, high
	High strength
	Pressure cooker disinfection
	Good disinfection
	Ethylene oxide disinfection
	Anti-gamma radiation
	High liquidity
	Good chemical resistance
	Fatigue resistance
	Heat resistance, high
	Steam resistance
	thermal disinfection
	Disinfect with steam
	Flame retardancy
Uses	Films
	Pump parts
	Electrical/Electronic Applications
	Aircraft applications
	Industrial application
	Connector
	Seals
	Oil/Gas Supplies
	Surgical instruments
	Dental application field
	Medical/nursing supplies

	Medical equipment
	Medical devices

RoHS Compliance	Contact manufacturer
Appearance	Black
Forms	Particle
Processing Method	Machining
	Profile extrusion molding
	Injection molding

Physical	Nominal Value	Unit	Test Method
Density	1.45	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (400°C/5.0 kg)	50	g/10 min	ASTM D1238
PV Limit [1]	300000 - 400000	psi·fpm	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness	99		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
--	13500	MPa	ASTM D638
--	16000	MPa	ISO 527-2
Tensile Stress			
Fracture	180	MPa	ISO 527-2
--	194	MPa	ASTM D638
Tensile Elongation			
Fracture	1.8	%	ASTM D638
Fracture	1.7	%	ISO 527-2
Flexural Modulus			
--	13500	MPa	ASTM D790
--	13200	MPa	ISO 178
Flexural Strength			
--	280	MPa	ASTM D790
--	260	MPa	ISO 178
Compressive Strength	138	MPa	ASTM D695
Shear Strength	83.0	MPa	ASTM D732
Coefficient of Friction [2]	0.28		ASTM D3702
Wear Factor (0.22 MPa, 4.1 m/sec)	46	10^-8 mm³/N·m	ASTM D3702
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
--	68	J/m	ASTM D256
--	7.0	kJ/m²	ISO 180
Unnotched Izod Impact	530	J/m	ASTM D4812
Thermal	**Nominal Value**	**Unit**	**Test Method**

Glass Transition Temperature	147	°C	ISO 11357-2
Melting Temperature	343	°C	ISO 11357-3
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (400°C, 1000 sec^-1)	150	Pa·s	ASTM D3835
Injection	Nominal Value	Unit	
Drying Temperature	150	°C	
Drying Time	4.0	hr	
Rear Temperature	365	°C	
Middle Temperature	370	°C	
Front Temperature	375	°C	
Nozzle Temperature	380	°C	
Mold Temperature	175 - 205	°C	
Injection Rate	Fast		
Screw Compression Ratio	2.5:1.0 - 3.5:1.0		
NOTE			
1.	GMW 16771-Sequence B		
2.	Dry		

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

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