KetaSpire® KT-820 GF13

Polyetheretherketone

Solvay Specialty Polymers

Message:

KetaSpire® KT-820 is a low flow, 13% glass fiber reinforced grade of polyetheretherketone (PEEK). 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 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 and gas recovery, semiconductor fabrication, automotive, aerospace, healthcare, chemical processing, and other industrial uses.

This resin is opaque and beige to light brown in color in its natural state. Beige: KT-820 GF13 BG20

General Information			
Filler / Reinforcement	Glass Fiber,13% Filler by Weight		
Features	Fatigue Resistant		
	Flame Retardant		
	Good Chemical Resistance		
	Good Dimensional Stability		
	High Heat Resistance		
	High Stiffness		
	High Strength		
Uses	Industrial Applications		
	Medical/Healthcare Applications		
	Oil/Gas Applications		
RoHS Compliance	Contact Manufacturer		
Appearance	Beige		
	Opaque		
Forms	Pellets		
	Powder		
Processing Method	Injection Molding		
	Machining		
	Profile Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.38	g/cm³	ASTM D792
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	5900	MPa	ASTM D638

Tensile Strength	117	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	3.9	%	
Break	6.2	%	
Flexural Modulus	5600	MPa	ASTM D790
Flexural Strength	203	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	91	J/m	ASTM D256
Unnotched Izod Impact	1000	J/m	ASTM D4218
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	213	°C	ASTM D648
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (400°C, 1000 sec^-1)	534000	mPa·s	Internal Method
Melt Viscosity (400°C, 1000 sec^-1)	534000 Nominal Value	mPa·s Unit	Internal Method
Melt Viscosity (400°C, 1000 sec^-1) Injection Drying Temperature	534000 Nominal Value 150	mPa∙s Unit ℃	Internal Method
Melt Viscosity (400°C, 1000 sec^-1) Injection Drying Temperature Drying Time	534000 Nominal Value 150 4.0	mPa·s Unit °C hr	Internal Method
Melt Viscosity (400°C, 1000 sec^-1) Injection Drying Temperature Drying Time Rear Temperature	534000 Nominal Value 150 4.0 365	mPa·s Unit °C hr °C	Internal Method
Melt Viscosity (400°C, 1000 sec^-1) Injection Drying Temperature Drying Time Rear Temperature Middle Temperature	534000 Nominal Value 150 4.0 365 370	mPa·s Unit °C hr °C °C	Internal Method
Melt Viscosity (400°C, 1000 sec^-1) Injection Drying Temperature Drying Time Rear Temperature Middle Temperature Front Temperature	534000 Nominal Value 150 4.0 365 370 375	mPa·s Unit °C hr °C °C °C °C	Internal Method
Melt Viscosity (400°C, 1000 sec^-1) Injection Drying Temperature Drying Time Rear Temperature Middle Temperature Front Temperature Nozzle Temperature	534000 Nominal Value 150 4.0 365 370 375 380	mPa·s Unit °C hr °C °C °C °C °C	Internal Method
Melt Viscosity (400°C, 1000 sec^-1) Injection Drying Temperature Drying Time Rear Temperature Middle Temperature Front Temperature Nozzle Temperature Mold Temperature	534000 Nominal Value 150 4.0 365 370 375 380 175 to 205	mPa·s Unit °C hr °C °C °C °C °C °C °C	Internal Method
Melt Viscosity (400°C, 1000 sec^-1)InjectionDrying TemperatureDrying TimeRear TemperatureMiddle TemperatureFront TemperatureNozzle TemperatureMold TemperatureInjection Rate	534000 Nominal Value 150 4.0 365 370 375 380 175 to 205 Fast	mPa·s Unit °C hr °C °C °C °C °C	Internal Method

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