KetaSpire® KT-820 SL10

Polyetheretherketone

Solvay Specialty Polymers

Message:

KetaSpire® KT-820 SL10 is a polyetheretherketone (PEEK) based compound designed to offer enhanced lubricity and reduced friction compared to standard PEEK. Unlike other grades formulated for wear resistance, this grade offers high lubricity while retaining outstanding ductility and toughness that surpasses that of unmodified high viscosity PEEK. Also, this product offers high melt flow, which allows injection molding of thin, intricate, or complex parts.
In addition to these differentiating features, this resin also offers the outstanding combination of ultra-performance attributes commonly known for PEEK. These include: mechanical strength and stiffness even at elevated temperatures, long term thermal-oxidative stability, fatigue resistance, and excellent chemical resistance to a broad range of harsh chemical environments including acids, bases, and organics.
The attractive combination of properties make KetaSpire® KT-820 SL10 suitable for applications in transportation, electronics, chemical processing, and industrial uses including oil and gas exploration and production.

General Information	
Features	Fatigue Resistant
	Flame Retardant
	Good Chemical Resistance
	Good Dimensional Stability
	Good Wear Resistance
	High Heat Resistance
Uses	Film
	Industrial Applications
	Oil/Gas Applications
	Profiles
	Rods
	Sheet
	Tubing
RoHS Compliance	RoHS Compliant
Appearance	Black
Forms	Pellets
Processing Method	Injection Molding
	Machining
	Profile Extrusion

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.35	g/cm³	ASTM D792
Molding Shrinkage			ASTM D955
Flow : 3.20 mm [1]	1.2 to 1.4	%	
Across Flow : 3.20 mm [2]	1.6 to 1.8	%	
Water Absorption (24 hr)	0.10	%	ASTM D570

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 1 sec)	83		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [3]	3600	MPa	ASTM D638
Tensile Strength [4]	88.0	MPa	ASTM D638
Tensile Elongation			
Yield [5]	5.2	%	ASTM D638
Break [6]	60	%	ASTM D638
Break	60	%	ISO 527-2/1A/50
Flexural Modulus	3500	MPa	ASTM D790
Flexural Strength			ASTM D790
--	134	MPa	
Yield	134	MPa	
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	170	J/m	ASTM D256
Unnotched Izod Impact	No Break		ASTM D4812
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Annealed)	155	°C	ASTM D648
Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Melt Viscosity (400°C, 1000 sec^-1)	170	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 to 205	°C	
Injection Rate	Fast		
Screw Compression Ratio	2.5:1.0 to 3.5:1.0		
NOTE			
1.	5" x 0.5" x 0.125" bars		
2.	5" x 0.5" x 0.125" bar		
3.	50 mm/min		
4.	50 mm/min		
5.	50 mm/min		
6.	50 mm/min		

Recommended distributors for this material

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