KetaSpire® KT-850

Polyetheretherketone

Solvay Specialty Polymers

Message:

KetaSpire® KT-850 is the intermediate-flow grade of unreinforced polyetheretherketone (PEEK) supplied in a natural-color pellet form. 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 healthcare, transportation, electronics, chemical processing and other industrial uses.
Natural: KT-850 NT

General Information	
UL YellowCard	E140728-100211982
Features	Good dimensional stability Impact resistance, good Good chemical resistance Fatigue resistance Heat resistance, high ductility Flame retardancy
Uses	Films Bushing Electrical/Electronic Applications Aircraft applications Composite Industrial application Pipe fittings Seals Application in Automobile Field Oil/Gas Supplies Medical/nursing supplies Bearing
RoHS Compliance	RoHS compliance
Appearance	Natural color
Forms	Particle
Processing Method	Film extrusion Wire & Cable Extrusion Machining Extrusion blow molding Thermoforming

Profile extrusion molding

Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.30	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (400°C/2.16 kg)	10	g/10 min	ASTM D1238
Molding Shrinkage [1]			ASTM D955
Flow: 3.18mm	1.2	%	ASTM D955
Transverse flow: 3.18mm	1.4	%	ASTM D955
Water Absorption (24 hr)	0.10	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D, 1 sec)	88		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [2]	3650	MPa	ASTM D638
Tensile Strength [3]	96.5	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield [4]	5.2	%	ASTM D638
Fracture [5]	> 50	%	ASTM D638
Fracture [6]	20 - 30	%	ASTM D638
Flexural Modulus	3700	MPa	ASTM D790
Flexural Strength	146	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	91	J/m	ASTM D256
Unnotched Izod Impact	No Break		ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Annealed)	162	°C	ASTM D648
Glass Transition Temperature	150	°C	ASTM D3418
Melting Temperature	340	°C	ASTM D3418
CLTE - Flow (-50 to 50°C)	4.3E-5	cm/cm/°C	ASTM E831
Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Melt Viscosity (400°C, 1000 sec^-1)	380	Pa·s	ASTM D3835
Injection	**Nominal Value**	**Unit**	
Drying Temperature	150	°C	
Drying Time	4.0	hr	
Rear Temperature	355	°C	
Middle Temperature	365	°C	
Front Temperature	370	°C	
Nozzle Temperature	375	°C	
Mold Temperature	175 - 205	°C	
Injection Rate	Fast		
Screw Compression Ratio	2.5:1.0 - 3.5:1.0		

Injection instructions	
Back Pressure: minimum	
NOTE	
1.	5" x 0.5" x 0.125" bar
2.	51 mm/min
3.	51 mm/min
4.	51 mm/min
5.	5.1 mm/min
6.	51 mm/min

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