KetaSpire® KT-880UFP
polyetheretherketone

KetaSpire® KT-880UFP is the high flow grade of unreinforced polyetheretherketone (PEEK) supplied in a natural-colored, ultra-fine powder form. This ultra-fine PEEK powder is suitable for water borne coatings, electrostatically driven powder coatings, and resin pre-impregnation of continuous fiber composites. This ultra fine powder is produced to a median particle size D50 of about 10 micrometers.

KetaSpire® PEEK is produced to the highest industry standards and is characterized by a distinct combination of properties, which include excellent chemical resistance to acids, bases and a broad range of aggressive organic chemicals, best in class fatigue resistance, high thermal resistance, high purity and ease of melt processing.

These properties make KT-880UFP well-suited for applications in health care, transportation, electronics, chemical processing and other industrial uses.

The resin is also available in a natural-colored pellet form under the grade name KT-880 NT for injection molding applications.

General		
Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Features	• Chemical Resistant • Ductile • Fatigue Resistant • Flame Retardant	• Good Dimensional Stability • Good Impact Resistance • High Heat Resistance
Uses	• Aerospace Applications • Automotive Applications • Electrical/Electronic Applications	• Industrial Applications • Oil/Gas Applications
RoHS Compliance	• Contact Manufacturer	
Appearance	• Natural Color	
Forms	• Powder	
Processing Method	• Electrostatic Spray Coating	• Water-borne Coating

Physical	Typical Value	Unit	Test method
Density / Specific Gravity	1.30		ASTM D792
Melt Mass-Flow Rate (MFR) (400°C/2.16 kg)	36	g/10 min	ASTM D1238
Water Absorption (24 hr)	0.10	%	ASTM D570
Particle Size			
D50	10.0	µm	
D90	15.0	µm	
D99	22.0	µm	

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Mechanical	Typical Value	Unit	Test method
Tensile Modulus	3650	MPa	ASTM D638
Tensile Strength	100	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	5.2	%	
Break[1]	10 to 20	%	
Flexural Modulus	3790	MPa	ASTM D790
Flexural Strength	153	MPa	ASTM D790

Impact	Typical Value	Unit	Test method
Notched Izod Impact	53	J/m	ASTM D256
Unnotched Izod Impact	No Break		ASTM D4812

Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	160	°C	
Glass Transition Temperature	147	°C	ASTM D3417
Melting Temperature	343	°C	ASTM D3417
CLTE - Flow (-50 to 50°C)	5.0E-5	cm/cm/°C	ASTM E831

Fill Analysis	Typical Value	Unit	Test method
Melt Viscosity (400°C, 1000 sec^-1)	150	Pa·s	ASTM D3835

Additional Information
D50, median particle size by Microtrac Laser Diffracation, 7.5 to 12.5 microns.

Injection Notes
Back Pressure: minimum

Notes

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

[1] Tensile test speed = 2 in/min (50 mm/min)

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