

KetaSpire® KT-820UFP

polyetheretherketone

KetaSpire® KT-820UFP is the low 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-820UFP well-suited for applications in healthcare, transportation, electronics, chemical processing and other industrial uses.

The resin is also available in a natural-colored pellet form under the grade name KT-820 NT for injection molding and extrusion.

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)	3.0	g/10 min	ASTM D1238
Water Absorption (24 hr)	0.10	%	ASTM D570
Particle Size			
D50	10.0	µm	
D90	16.0	µm	
D99	26.0	µm	

Mechanical	Typical Value	Unit	Test method
Tensile Modulus	3650	MPa	ASTM D638
Tensile Strength	96.5	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	5.2	%	
Break ¹	20 to 30	%	

KetaSpire® KT-820UFP

polyetheretherketone

Mechanical	Typical Value	Unit	Test method
Flexural Modulus	3860	MPa	ASTM D790
Flexural Strength	152	MPa	ASTM D790

Impact	Typical Value	Unit	Test method
Notched Izod Impact	69	J/m	ASTM D256
Unnotched Izod Impact	No Break		ASTM D256

Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load 1.8 MPa, Unannealed	157	°C	ASTM D648
Glass Transition Temperature	150	°C	ASTM D3417
Melting Temperature	340	°C	ASTM D3417
CLTE - Flow (-50 to 50°C)	4.3E-5	cm/cm/°C	ASTM E831

Fill Analysis	Typical Value	Unit	Test method
Melt Viscosity (400°C, 1000 sec ⁻¹)	420	Pa·s	ASTM D3835

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)



Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

Neither Solvay Specialty Polymers nor any of its affiliates makes any warranty, express or implied, including merchantability or fitness for use, or accepts any liability in connection with this product, related information or its use. Some applications of which Solvay's products may be proposed to be used are regulated or restricted by applicable laws and regulations or by national or international standards and in some cases by Solvay's recommendation, including applications of food/feed, water treatment, medical, pharmaceuticals, and personal care. Only products designated as part of the Solviva® family of biomaterials may be considered as candidates for use in implantable medical devices. The user alone must finally determine suitability of any information or products for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. The information and the products are for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right.

All trademarks and registered trademarks are property of the companies that comprise the Solvay Group or their respective owners.

© 2019 Solvay Specialty Polymers. All rights reserved.