# PPS or Fluoropolymer supplier left you stranded?



VICTREX® PEEK polymer is readily available as an alternative to polyphenylene sulfide (PPS) or fluoropolymers providing assurance of supply, excellent quality, and price stability for you and your customers. This high performance material is a great fit for applications that need to withstand highly abrasive, corrosive and extreme temperature environments.

Come aboard with VICTREX PEEK polymer for security of supply, great customer service and pricing stability.

victrex®

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By specifying VICTREX PEEK polymer, you will have a reliable and secure supply of material that gives your customers peace of mind in order to meet their manufacturing and sales commitments.



#### **Wuxi Shuangling**

Wuxi Shuangling selected VICTREX PEEK polymer for the manufacture of its vacuum pump vanes versus traditional materials such as PPS and graphite. VICTREX PEEK polymer has excellent resistance to automotive fluids, demonstrates good compressive creep resistance at elevated temperatures and offers excellent wear resistance for longer service life.

### VICTREX PEEK Polymer Properties vs. PPS

	VICTREX PEEK	PPS
Structure	Semi-crystalline	Semi-crystalline
Glass Transition Temperature (T <sub>g</sub> )	143°C (289°F)	85°C (185°F)
Relative Thermal Index (RTI)	240°C (464°F)	220°C (428°F)
Melting temperature	343°C (649°F)	285°C (545°F)
Maximum service temperature	260°C (500°F)	230°C (446°F)
Standard injection moulding	Yes	Yes
Chemical resistance	Excellent	Very good
Ductility – unfilled grades	Excellent	Very poor
Ductility – filled grades	Good	Poor
Wear resistance	Excellent	Good

#### Security of Supply

Victrex invests in capacity ahead of demand to assure customers supply security. Our two independently-operated polymer plants are capable of producing up to 4,250 tonnes (~ 9.3 MM lbs.) per year. We offer fast delivery – typically within 7 days – anywhere in the world through our centralized logistics system and local distribution warehouses.

VICTREX PEEK polymers are available as melt-filtered pellets, milled fine powders, or compounds containing a variety of functional fillers and reinforcements including specific wear-resistant properties.



#### Taconic International

Taconic International selected VICTREX PEEK-based VICOTE® Coatings as a key element in its Tacmaster™ food conveyor belts. Integrated with PTFE, VICTREX PEEK polymer helps improve overall wear, abrasion, puncture and impact resistance as well as provides non-stick properties, dimensional stability, resistance to oils and grease and continuous temperature resistance (up to 260°C).

## **VICTREX PEEK Polymer Properties** vs. Fluoropolymers

	VICTREX PEEK	Fluoropolymers
Specific gravity	1.3	1.8 - 2.2
Strength	High	Low
Stiffness	High	Low
Flammability	Excellent	Excellent
Smoke toxicity	Low	High
Halogen-free	Yes	No
RoHS compliant	Yes	No
Melting temperature	343°C (649°F)	175-327°C (347-621°F)
Glass Transition Temperature (T <sub>9</sub> )	143°C (289°F)	-20°C (-4°F)
Processability	Excellent	Poor to fair
Chemical resistance	Excellent	Excellent
Wear resistance	Excellent	Fair
Coefficient of friction	Very good	Excellent

#### **Outstanding Quality**

Victrex is the only vertically-integrated polyketone solutions provider in the world, so we have complete control over our key raw material which is essential for consistent polymer quality. All of our manufacturing is done in the UK under strict ISO 9001:2008 registration and EU safety and environmental legislation. We perform more than 50 tests on each batch of polymer to assure quality and consistency.

#### **Advanced Solutions Provider**

In today's competitive environment, working with an economically stable company with the most advanced technologies and services of its kind is critical for success. With more than 30 years of PEEK polymer experience, we offer material selection, material evaluation, application development as well as design, prototyping and processing support.

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