



# VICTREX FG™ POLYMER 700 FPD

## General Information

### Product Description

High performance thermoplastic material, unreinforced PolyEtherEtherKetone (PEEK), semi crystalline, fine powder for composite manufacture, easy flow, FDA food contact compliant, colour natural.

Applications for higher strength in a static system. Low coefficient of thermal expansion. Chemically resistant to aggressive environments, suitable for sterilisation for medical and food contact applications

## Material Properties

Physical	Nominal Value	Unit	Test Method
Density	1.30	g/cm <sup>3</sup>	ISO 1183
Apparent (Bulk) Density	0.30	g/cm <sup>3</sup>	ISO 1183
Average Particle Size - D50	10	µm	ISO 13320-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>1</sup> (23°C)	4100	MPa	ISO 527-1
Tensile Stress <sup>1</sup> (Break, 23°C)	100	MPa	ISO 527-2
Tensile Strain <sup>1</sup> (Break, 23°C)	15	%	ISO 527-2
Flexural Modulus <sup>1</sup> (23°C)	3900	MPa	ISO 178
Flexural Stress <sup>1</sup> (23°C)	170	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength <sup>1</sup> (23°C)	4.5	kJ/m <sup>2</sup>	ISO 180/A
Unnotched Izod Impact Strength <sup>1</sup> (23°C)	No Break		ISO 180
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature			ISO 11357-2
Onset	143	°C	
Midpoint	147	°C	
Melting Temperature	343	°C	ISO 11357-3
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (400°C)	130	Pa·s	ISO 11443

## Typical Processing Information

Injection	Nominal Value	Unit
Drying Temperature	120 to 150	°C
Drying Time	3.0 to 5.0	hr
Suggested Max Moisture	0.020	%
Processing (Melt) Temp	380 to 400	°C

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## Injection Notes

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Important notes:

- 1) Processing conditions quoted in our datasheets are typical of those used in our processing laboratories
  - Data for mould shrinkage should be used for material comparison. Actual mould shrinkage values are highly dependent on part geometry, mould configuration, and processing conditions.
  - Mould shrinkage differs for along flow and across flow directions. "Along flow" direction is taken as the direction the molten material is travelling when it exits the gate and enters the mould.
  - Mould shrinkage is expressed as a percent change in dimension of a specimen in relation to mould dimensions.
- 2) Data are generated in accordance with prevailing national, international and internal standards, and should be used for material comparison. Actual property values are highly dependent on part geometry, mould configuration and processing conditions. Properties may also differ for along flow and across flow directions.

Detailed data available on our website [www.victrex.com](http://www.victrex.com) or upon request.

## Notes

- <sup>1</sup> Results based on similar products

**Revision Date: November 2023**

This information is provided "as is". It is not intended to amount to advice. Use of the product is at the customer's/user's risk. It is the customer's/user's responsibility to thoroughly test the product in each specific application to determine its performance, efficacy and safety for each end-use product, device or other application and compliance with applicable laws, regulations and standards. Mention of a product is no guarantee of availability. Victrex reserves the right to modify products, data sheets, specifications and packaging. **Victrex makes no warranties, express or implied (including, without limitation, any warranty of fitness for a particular purpose or of intellectual property non-infringement) and will not be liable for any loss or damage of any nature (however arising) in connection with customer's/user's use or reliance on this information, except for any liability which cannot be excluded or limited by law.** This document may be modified or retracted at any time without notice to the customer/user.

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