VICTREX HT™ POLYMER P45PF

General Information

Product Description

High performance thermoplastic material, unreinforced PolyEtherKetone (PEK), semi crystalline, fine powder for compression moulding, low flow, colour natural.

Material Properties

Physical	Nominal Value	Unit	Test Method
Density	1.30	g/cm³	ISO 1183
Apparent (Bulk) Density	0.30	g/cm³	ISO 1183
Average Particle SizeD50	50	µm	ISO 13320-1
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (23°C)	4200	MPa	ISO 527-1
Tensile Stress (Yield, 23°C)	100	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	15	%	ISO 527-2
Flexural Modulus (23°C)	4200	MPa	ISO 178
Flexural Stress (23°C)	170	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact Strength (23°C)	6.5	kJ/m²	ISO 180/A
Unnotched Izod Impact Strength (23°C)	No Break		ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Glass Transition Temperature			ISO 11357-2
Onset	152	°C	
Midpoint	160	°C	
Melting Temperature	373	°C	ISO 11357-3
Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Melt Viscosity (400°C)	350	Pa·s	ISO 11443
Additional Information	**Nominal Value**	**Unit**	
Compression Molding Temperature	400 to 420	°C	
Drying TemperatureCompression molding	120 to 150	°C	
Drying TimeCompression molding	3.0 to 5.0	hr	

Typical Processing Information

Injection Notes

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 or upon request.

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