VICTREX 450G™ MIC PEEK POLYMER

General Information

Product Description

High performance thermoplastic material, unfilled PolyEtherEtherKetone (PEEK), semi crystalline, micropellets for compression moulding, standard flow, colour natural.

Typical Application Areas

Applications for higher strength and stiffness as well as high ductility. Chemically resistant to aggressive environments.

Material Properties

Physical	Nominal Value	Unit	Test Method
Density [1]	1.30	g/cm³	ISO 1183
Apparent (Bulk) Density	0.75	g/cm³	ISO 1183
Average Particle Size D50	1.5 x 1.8 mm		ISO 13320-1
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [1] (23°C)	4000	MPa	ISO 527-1
Tensile Stress			
Yield, 23°C [1]	98.0	MPa	ISO 527-2
Break, 23°C	82.0	MPa	ISO 527
Tensile Strain (Break, 23°C)	46	%	ISO 527-2
Flexural Modulus (23°C)	3700	MPa	ISO 178
Flexural Stress			ISO 178
3.5% Strain, 23°C	122	MPa	
5.0% Strain, 23°C	151	MPa	
23°C [2]	164	MPa	
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact Strength (23°C)	7.3	kJ/m²	ISO 180/A
Hardness	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness [1] (Shore D, 23°C)	84.5		ISO 868
Thermal	**Nominal Value**	**Unit**	**Test Method**
Glass Transition Temperature [1]			ISO 11357-2
Onset	143	°C	
Midpoint	150	°C	
Melting Temperature [1]	343	°C	ISO 11357-3
Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Melt Viscosity [1] (400°C)	350	Pa·s	ISO 11443
Additional Information	**Nominal Value**	**Unit**	
Compression Molding Temperature	380 to 400	°C	
Drying Temperature Compression molding	120 to 150	°C	
Drying Time Compression molding	3.0 to 5.0	hr	

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Important notes:

1) Processing conditions quoted in our datasheets are typical of those used in our processing laboratories

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.

Notes

[1] Data inherited from 450G.

[2] Maximum strain

Revision Date: September 2025