

## PROVISIONAL TECHNICAL DATA SHEET - VICTREX CT™ 200

## **Product Description**

High performance thermoplastic PAEK polymer micro-granules for injection and compression moulding and extrusion. Suitable for dynamic sealing applications at very low temperatures. Colour: Green.

MATERIAL PROPERTIES								
	CONDITIONS	TEST METHOD	UNITS	TYPICAL VALUE				
Mechanical Data								
Tensile Strength	At yield, 23°C	ISO 527	MPa	75				
	-196°C			140				
Tensile Elongation	At break, 23°C	ISO 527	%	41				
	-196°C			4				
Flexural Strength	23°C	ISO 178	MPa	132				
	-196°C			359				
Flexural Modulus	23°C	ISO 178	GPa	3.3				
	-196°C			5.0				
Compressive Strength	-196°C	ISO 604	MPa	250				
Compressive Modulus	-196°C	ISO 604	GPa	5.4				
Izod Impact Strength	Notched, 23°C	ISO 180/A	kJ m <sup>-2</sup>	9				
Hardness	23°C	Shore D	-	80				
Thermal Data								
Melting Point		ISO 11357	°C	343				
Glass Transition (Tg)	Onset	ISO 11357	°C	143				
	Midpoint			150				
Coefficient of Thermal Expansion	Average, 23°C	ISO 11359	ppm K <sup>-1</sup>	48				
	Average, -165°C	DIN 51909		42				
Thermal Conductivity	Average, 23°C	ISO 22007-4	W m <sup>-1</sup> K <sup>-1</sup>	0.25				
Thermal Conductivity	Average, -165°C			0.15				
Miscellaneous								
Density	Crystalline	ISO 1183	g cm <sup>-3</sup>	1.40				

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Typical Processing								
Drying Temperature / Tir	me	150°C / 3h or 120°C / 5h (residual moisture <0.02%)						
Temperature settings		365 / 370 / 375 / 380 / 385°C (Nozzle)						
Hopper Temperature		Not greater than 100°C						
Mould Temperature		170°C - 200°C						
Runner		Die / nozzle >3mm, manifold >3.5mm						
Gate		>2mm or 0.5 x part thickness						
Mould Shrinkage + spi	ral flow							
Spiral Flow	385°C nozzle, 180°C tool	1mm thick section	Victrex	mm	91			
Mould Shrinkage	385°C nozzle, 180°C tool	Along flow	ISO 294-4	%	1.09			
		Across flow			1.50			

Important notes:

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.

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