

VICTREX CT™ POLYMER 200

General Information

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

Physical	Nominal Value	Unit	Test Method
Density (Crystalline)	1.40	g/cm ³	ISO 1183
Spiral Flow ¹	9.10	cm	Internal Method
Molding Shrinkage ²			ISO 294-4
Across Flow	1.5	%	
Flow	1.1	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress			ISO 527-2
Yield, -196°C	140	MPa	
Yield, 23°C	75.0	MPa	
Tensile Strain			ISO 527-2
Break, -196°C	4.0	%	
Break, 23°C	41	%	
Flexural Modulus			ISO 178
-196°C	5000	MPa	
23°C	3300	MPa	
Flexural Stress			ISO 178
-196°C	359	MPa	
23°C	132	MPa	
Compressive Modulus (-196°C)	5400	MPa	ISO 604
Compressive Stress (-196°C)	250	MPa	ISO 604
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength (23°C)	9.0	kJ/m ²	ISO 180/A
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 23°C)	80.0		ISO 868
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature			ISO 11357-2
Onset	143	°C	
Midpoint	150	°C	
Melting Temperature	343	°C	ISO 11357-3
CLTE - Average			
-165°C	42	ppm/K	DIN 51909
23°C	48	ppm/K	ISO 11359-2
Thermal Conductivity			ISO 22007-4
-165°C	0.15	W/m/K	
23°C	0.25	W/m/K	

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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	%
Hopper Temperature	< 100	°C
Rear Temperature	365	°C
Middle Temperature	370 to 375	°C
Front Temperature	380	°C
Nozzle Temperature	385	°C
Mould Temperature	170 to 200	°C

Injection Notes

Runner: Die / nozzle >3mm, manifold >3.5mm
Gate: >2mm or 0.5 x part thickness

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.

Notes

¹ Mould Temperature: 180°C, Melt Temperature: 385°C, 1.00 mm

² 385°C nozzle, 180°C tool

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