

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/cm ³ | ISO 1183 |
| Apparent (Bulk) Density | 0.75 | g/cm ³ | ISO 1183 |
| Average Particle SizeD50 | 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/m ² | 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 TemperatureCompression molding | 120 to 150 | °C | |
| Drying TimeCompression 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

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