

VICTREX ABV™ 300 GRA



Product Description

High performance thermoplastic material, reinforced PolyEtherEtherKetone (PEEK), semi crystalline, granules for injection moulding, colour black.

Typical Application Areas

VICTREX ABV™ 300 is typically used in applications that operate across a wide temperature range and require a combination of strength and compressive creep resistance at lower stiffness compared to 30% reinforced carbon grades,

| MATERIAL PROPERTIES | | | | |
|----------------------------------|-------------------|-------------|---------------------|---------------|
| | CONDITIONS | TEST METHOD | UNITS | TYPICAL VALUE |
| Mechanical Data | | | | |
| Tensile Strength | Break, 23°C | ISO 527 | MPa | 200 |
| Tensile Elongation | Break, 23°C | ISO 527 | % | 2.3 |
| Tensile Modulus | 23°C | ISO 527 | GPa | 20 |
| Flexural Strength | 23°C | ISO 178 | MPa | 330 |
| | 125°C | | | 220 |
| Flexural Modulus | 23°C | ISO 178 | GPa | 18 |
| | 125°C | | | 17 |
| Compressive Strength | 23°C | ISO 604 | MPa | 275 |
| | 120°C | | | 175 |
| Izod Impact Strength | Notched, 23°C | ISO 180/A | kJ m ⁻² | 9.0 |
| | Unnotched, 23°C | ISO 180/U | | 55 |
| Thermal Data | | | | |
| Melting Point | | ISO 11357 | °C | 343 |
| Glass Transition (Tg) | Onset | ISO 11357 | °C | 143 |
| Coefficient of Thermal Expansion | Average below Tg | ISO 11359 | ppm K ⁻¹ | 6 |
| | Average above Tg | | | 35 |
| Heat Deflection Temperature | 1.8 MPa | ISO 75-f | °C | >300 |
| Flow | | | | |
| Melt Viscosity | 400°C | ISO 11443 | Pa.s | 575 |
| Miscellaneous | | | | |
| Density | Crystalline | ISO 1183 | g cm ⁻³ | 1.41 |
| Shore D hardness | 23°C | ISO 868 | | 87.5 |
| Water Absorption by immersion | Saturation, 23°C | ISO 62-1 | % | 0.3 |
| | Saturation, 100°C | | | 0.45 |

| Typical Processing Conditions | |
|-------------------------------|---|
| Drying Temperature / Time | 150°C / 3h or 120°C / 5h (residual moisture <0.02%) |
| Temperature settings | 375 / 380 / 385 / 390 / 395°C (Nozzle) |
| Hopper Temperature | Not greater than 100°C |
| Mould Temperature | 180°C - 200°C |
| 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
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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