

M SEALS PKHT-BLKD85

Black High Temperature PEK

MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Description

M Seals PKHT-BLKD85 material is a high-performance black pigmented PEK material (commonly referred to as PEEK-HT or Victrex HT™*) that is suitable for high temperature applications requiring increased compressive strength and wear resistance while under high thermal load. It has very good chemical resistance and an increased heat deflection temperature over standard PEEK materials

PKHT-BLKD85 material is generally used for bespoke customer designed parts and is commonly used in applications requiring its excellent low wear and high compressive strength properties while working in increased temperatures.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Black
Density	ISO 1183	g/cm ³	1.31
Hardness	ISO 868	Shore D	85
Tensile strength	ISO 527-2	MPa	120
Tensile strength at yield	ISO 527-2	MPa	120
Elongation at break	ISO 527-2	%	4
Flexural strength	ISO 178	Mpa	192
Flexural modulus of elasticity	ISO 178	Mpa	4600
Glass transition temperature **	DIN 53765	°C	+160
Melting temperature	DIN 53765	°C	+375
Service temperature short term ***		°C	+300
Service temperature long term ***		°C	-50/+260

* Victrex and Victrex ST are registered trademarks of Victrex PLC

** (Information found from public sources)

*** (Individual testing in application conditions is mandatory)

Main Characteristics

- Excellent thermal resistance
- Good chemical resistance
- Increased mechanical properties at elevated temperatures
- Increased heat deflection temperature
- Good wear resistance

Typical Products

- Bearing rings / guide rings
- Bushes
- Valve seat seals
- Anti-Extrusion / Back-Up Rings
- Bespoke parts

Typical Applications

Due to its increased thermal and mechanical properties, heat deflection and good chemical resistance, this material can be an excellent material choice for applications that require a material to work at high temperatures while under mechanical load.

Tel: 0044 (0) 114 243 2777 . Fax: 0044 (0) 114 242 2300 . Mail: sales.esd@m-seals.co.uk . Web: www.m-seals.com

M Seals believes that the information above is an accurate description of the typical characteristics and/or uses of the product or products, however M Seals makes no warranty, expressed or implied, that parts manufactured from this / and or any other material will perform satisfactorily in the customers application. It is the customers responsibility to thoroughly test products in their specific application to determine performance, efficiency and safety for each end-use product, device or application. The information and data contained herein are based on standard test pieces according to the corresponding ISO, DIN & ASTM standards and cannot be directly related to finished seals, gaskets or other sealing products and should be used only as a general guide.