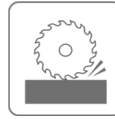


M SEALS PKV-BLKD82

Black Pigmented Virgin PEEK



MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Description

M Seals PKV-BLKD82 material is a high-performance unreinforced virgin PEEK material that has been pigmented black in colour. This material has excellent thermal resistance, high compressive strength, low wear properties and low creep values.

PKV-BLKD82 material is commonly used for guide rings, wear rings, bushes, valve seat seals, scraper seals and other applications requiring excellent hydrolysis and steam resistance.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Black
Density	ASTM D792	g/cm ³	1.31
Hardness	ASTM D2240	Shore D	82
Tensile strength	ASTM D638	MPa	≥95
Tensile modulus	ASTM D638	MPa	≥3.3
Elongation at break	ASTM D638	%	≥10
Flexural strength	ASTM D790	Mpa	≥140
Compressive strength	ASTM D695	Mpa	≥100
Glass transition temperature *	ASTM D3418	°C	+143
Melting temperature	ASTM D3418	°C	+341
Service temperature short term **		°C	+300
Service temperature long term **		°C	-50/+250

* (Information found from public sources)

** (Individual testing in application conditions is mandatory)

Main Characteristics

- Excellent thermal resistance
- High compressive strength
- Good sliding ability
- Good creep resistance
- Good wear properties
- Hydrolysis & steam resistance

Typical Products

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

Typical Applications

Due to its excellent thermal resistance, compressive strength and sliding ability, this material is an excellent material choice for applications where standard PEEK materials may not be suitable because of colouring. PKV-BLKD82 is commonly used within the Oil and Gas and Aerospace industries.

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