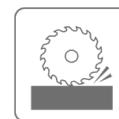


# M SEALS PKMD-BLD82

Blue Metal Detectable PEEK

MATERIAL DATA SHEET (Version 6.0 – 05.2022)



## Description

M Seals PKMD-BLD86 material is a high-performance PEEK material that has been modified through the addition of a metal detectable ingredient and pigmented blue in colour for easier identification.

This material was developed specifically for use in food industry applications using metal detection and optical camera detection to identify possible contamination in food products. It has excellent mechanical strength, chemical and wear resistance while also offering excellent hydrolysis and steam resistance. PKMD-BLD86 is a highly versatile advanced engineering thermoplastic material which can be used for a wide range of components in the food industry.

## Physical Properties

Property	Test method	Unit	Typical value
Colour			Blue
Density	ISO 1183	g/cm <sup>3</sup>	1.49
Hardness	ISO 868	Shore D	86
Tensile Strength	ISO 527-2	MPa	111
Tensile modulus of elasticity	ISO 527-2	MPa	4600
Elongation at break	ISO 527-2	%	6
Flexural strength		Mpa	166
Glass transition temperature *	ASTM D3418	°C	+150
Melting temperature	ASTM D3418	°C	+341
Service temperature short term **		°C	+300
Service temperature long term **		°C	-50/+260

\* (Information found from public sources)

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

## Main Characteristics

- Metal detectable
- High compressive strength
- Blue in colour
- 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 and hydrolysis resistance, compressive strength and its metal detective ability , this material is an excellent material choice for applications commonly found in the food and beverage industry.

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

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