

# M SEALS FC403

Carbon Reinforced PTFE

**M SEALS**

- Part of Diploma PLC

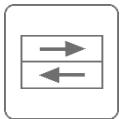
## MATERIAL DATA SHEET (Version 6.0 – 05.2022)



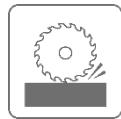
High Temperature



Chemical Resistance



Low Friction



Wear Resistance

### Description

M Seals FC403 material is a PTFE which has been reinforced with a filler of 25% Carbon. The addition of Carbon fillers to PTFE provides higher compressive strength, lower wear and lower creep values while improving sliding properties.

FC403 PTFE material is commonly used as a bearing material and for spring energised seals. While FC403 can work in a variety of fluids, it is particularly suitable for dry or poorly lubricated applications, such as water or water based hydraulic fluids.

### Physical Properties

Property	Test method	Unit	Typical value
Colour			Grey/Black
Density	ASTM 1457	g/cm <sup>3</sup>	2.10
Hardness	ASTM 1706	Shore D	≥60
Tensile Strength (cross direction)	ASTM D4894	MPa	15 (Min)
Elongation at break (cross direction)	ASTM D4894	%	90 (Min)
Service temperature *		°C	-200 to +260

\* (Individual testing in application conditions is mandatory)

### Main Characteristics

- Good choice for unlubricated service
- Good sliding ability
- Low creep rate
- Low wear properties

### Typical Products

- Back-up rings
- Bearing bushes / Guide rings
- Spring energised seals
- Thrust washers

### Typical Applications

Due to its excellent wear resistance, good compressive strength and sliding ability, FC403 is a good material choice for guide rings, back-up rings, spring energised seals and bearing bushes.

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