

M SEALS FC403

Carbon Reinforced PTFE



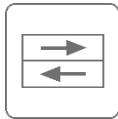
MATERIAL DATA SHEET (Version 6.0 – 05.2022)



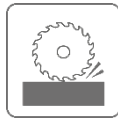
High Temperature



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 ³	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.

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.