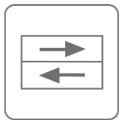
M SEALS **PTC10-GD56**

Carbon Graphite Reinforced PTFE

MATERIAL DATA SHEET (Version 6.0 – 05.2022)


High Temperature


Chemical Resistance


Low Friction


Wear Resistance

Description

M Seals PTC10-GD56 material is a PTFE which has been reinforced with a filler of Carbon/Graphite. The addition of Carbon/Graphite fillers to PTFE provides higher compressive strength, lower wear and lower creep values while improving sliding properties. This material is softer than its sister grade PTC25-GD63, making it slightly more flexible.

PTC10-GD56 PTFE material is commonly used for spring energised seals, O-Ring energised composite seals and back-up rings. While PTC10-GD56 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 D4894	g/cm^3	2.14
Hardness	ASTM D2240	Shore D	≥60
Tensile Strength	ASTM D4894	N/mm^2	≥24
Elongation at break	ASTM D4894	%	≥300
Service temperature *		°C	-200 to +260

* (Individual testing in application conditions is mandatory)

Main Characteristics

- Good choice for unlubricated service
- Good sliding ability
- Softer than standard grade and more flexible
- Low creep rate
- Low wear properties

Typical Products

- Composite seals
- Back-up Rings
- Bearing rings / guide rings
- Spring energised seals
- Valve seat seals

Typical Applications

Due to its excellent wear resistance, compressive strength and sliding ability, PTC10-GD56 is an excellent material choice for composite seals, valve seat seals, guide rings, back-up rings, spring energised seals and bearing bushes where our harder PTC25-GD63 material may be unsuitable due to lower flexibility.

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