

M SEALS PTC25-GD63-M710

Norsok M-710 Compliant Carbon Graphite Filled PTFE

M SEALS
- Part of Diploma PLC

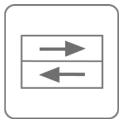
MATERIAL DATA SHEET (Version 6.0 – 05.2022)



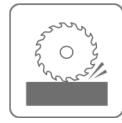
High Temperature



Chemical Resistance



Low Friction



Wear Resistance



Norsok M-710

Description

M Seals PTC25-GD63-M710 material is a Norsok M-710 compliant 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

PTC25-GD63-M710 PTFE material is commonly used for O-Ring energised composite seals, spring energised seals, valve seat seals, guide rings, wear rings, bushes and back-up rings. PTC25-GD63-M710 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 D792	g/cm ³	2.05-2.11
Hardness	ASTM D2240	Shore D	≥64
Tensile Strength	ISO 527	N/mm ²	≥14
Elongation at break	ISO 527	%	≥90
Deformation under load *	ASTM D621	%	≤7
Permanent deformation **	ASTM D621	%	≤5
Coefficient of Linear Thermal Expansion ***	ASTM D696	10 ⁻⁵ (mm/mm)/ °C	8-12
Dynamic coefficient of friction	ASTM D3702	Points	0.14
Service temperature ****		°C	-200 to +260

* (24 Hours @ 13.7 N/mm² @ 23°C)

** (After 24h relaxation)

*** (+25 to +100°C)

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

Main Characteristics

- Good choice for unlubricated service
- Good sliding ability
- Standard material
- 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 Norsok M-710 compliance, excellent wear resistance, compressive strength and sliding ability, PTC25-GD63-M710 is an excellent material choice for composite seals, valve seat seals, guide rings, back-up rings, spring energised seals and bearing bushes commonly used in the oil and gas industry. As mentioned above, this material is particularly suited to unlubricated service using water or water based fluids.

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