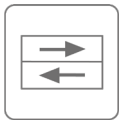
M SEALS **PTG25-WD65**

Glass Fibre Filled PTFE

MATERIAL DATA SHEET (Version 6.0 – 05.2022)


High Temperature


Chemical resistance


Low Friction

Description

M Seals PTG25-WD65 material is a PTFE which has been reinforced with a filler of 25% glass fibre by weight. The addition of glass fibre fillers to PTFE provides higher compressive strength, lower wear properties and lower creep values.

Glass filled PTFE material is commonly used for valve seat seals, guide rings, wear rings, bushes and back-up rings. It is highly chemical resistant except for strong alkalis and hydrofluoric acid (HF).

Physical Properties

Property	Test method	Unit	Typical value
Colour			White/Cream
Density	ASTM D792	g/cm^3	2.10-2.15
Hardness	ASTM D2240	Shore D	≥60
Tensile Strength	ISO 527	N/mm^2	≥17
Elongation at break	ISO 527	%	≥230
Deformation under load *	ASTM D621	%	≤12
Permanent deformation **	ASTM D621	%	≤ 7.5
Coefficient of Linear Thermal Expansion ***	ASTM D696	10^{-5} (mm/mm)/ °C	7.5-11
Dynamic coefficient of friction	ASTM D3702	Points	0.16
Service temperature ****		°C	-200 to +260

* (24 Hours @ 13.7 N/mm^2 @ 23°C)
** (After 24h relaxation)
*** (+25 to +100°C)
**** (Individual testing in application conditions is mandatory)

Main Characteristics

- Good compressive strength
- Good sliding ability
- Good dimensional stability
- Low creep rate
- Good wear properties

Typical Products

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

Typical Applications

Due to its good dimensional stability, compressive strength and sliding ability, PTG25-WD65 is an excellent material choice for composite seals, valve seat seals, guide rings, back-up rings, slideways and bearing bushes. As mentioned above, it should not be used in strong alkalis or hydrofluoric acid (HF).

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