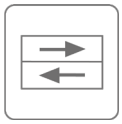
M SEALS **PTM15-GD60**

Glass & MoS2 Filled PTFE

MATERIAL DATA SHEET (Version 6.0 – 05.2022)


High Temperature


Chemical resistance


Low Friction

Description

M Seals PTM15-GD60 material is a modified PTFE which has been reinforced with fillers of glass fibre MoS2. The addition of glass fibre fillers to PTFE provides higher compressive strength, lower wear properties and lower creep values, the MoS2 addition increases hardness and provides a reduction in friction values.

PTM15-GD60 material is commonly used for O-Ring energised composite seals, guide rings, wear rings and bushes commonly used in the seal industry and is a considered a suitable alternative to bronze filled PTFE compounds.

Physical Properties

Property	Test method	Unit	Typical value
Colour			Grey
Density	ASTM D792	g/cm^3	2.20 - 2.30
Hardness	ASTM D2240	Shore D	≥55
Tensile Strength	ISO 527	N/mm^2	≥18
Elongation at break	ISO 527	%	≥230
Deformation under load *	ASTM D621	%	≤12.5
Permanent deformation **	ASTM D621	%	≤ 7
Coefficient of Linear Thermal Expansion ***	ASTM D696	10^{-5} (mm/mm)/ °C	9-12
Dynamic coefficient of friction	ASTM D3702	Points	0.11
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
- Excellent sliding ability
- Good dimensional stability
- Low creep rate
- Good wear properties

Typical Products

- Composite seals
- Wear strip
- Bearing rings / guide rings
- Bushes
- Valve seat seals

Typical Applications

Due to its good dimensional stability, compressive strength and sliding ability, PTM15-GD60 is an excellent material choice for O-Ring energised composite seals, valve seat seals, guide rings, wear rings, slideways and bearing bushes. Glass filled PTFE materials can be abrasive to soft or un-hardened metals.

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