M SEALS **PTG25M-WD60**

25% Glass Filled Modified PTFE (TFM)

MATERIAL DATA SHEET (Version 6.0 – 05.2022)


High Temperature


Chemical resistance

Deformation Resistance

Description

M Seals material PTG25M-WD60 is a modified PTFE compound (commonly referred to as TFM™) which has been reinforced via the addition of 25% glass fibre. PTG25M-WD60 has a denser polymer structure, which provides the material with an almost 50% increase in deformation resistance against the standard glass filled PTFE. The unique polymer structure also provides improved stress recovery and a smoother surface finish of finished components in comparison to standard PTFE, which is of the upmost importance for critical sealing products, such as ball valve seats or spring energised seals.

Physical Properties

Property	Test method	Unit	Typical value
Colour			White
Density	ISO 12086	g/cm^3	2.21-2.25
Hardness	DIN 53505	Shore D	60-65
Tensile Strength	DIN 53455	N/mm^2	12-16
Elongation at break	DIN 53455	%	350-450
Tensile Modulus	DIN 53457	N/mm^2	950
Deformation resistance *	ASTM D621	%	7
Coefficient of thermal expansion **		$1/K.10^{-5}$	13
Compress strength at 1% deformation (23°C)	DIN53454	N/mm^2	9
Service temperature***		°C	-200/+260

*** (24 Hours @ 23°C – 15 N/mm^2)**
**** (150 - 260°C)**
***** (Testing in application is mandatory)**

TFM™ is a registered trademark of 3M company

Main Characteristics

- Excellent deformation resistance
- Excellent permeation resistance
- Excellent stress recovery
- Excellent temperature & chemical resistance
- Smoother surface finish

Typical Products

- Soft seat seals
- Spring energised seals
- Gaskets
- Static Seals & O-Rings
- Valve linings

Typical Applications

Due to its excellent elasticity, deformation and permeation resistance PTG25M-WD60 is a superb choice for soft seat seals and spring energised seals in valve applications as well as many others where standard glass filled PTFE could be replaced for this improved material.

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