

# M SEALS PTG25M-WD60

25% Glass Filled Modified PTFE (TFM)

MATERIAL DATA SHEET (Version 6.0 – 05.2022)

**M SEALS**  
- Part of Diploma PLC



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 <sup>3</sup>	2.21-2.25
Hardness	DIN 53505	Shore D	60-65
Tensile Strength	DIN 53455	N/mm <sup>2</sup>	12-16
Elongation at break	DIN 53455	%	350-450
Tensile Modulus	DIN 53457	N/mm <sup>2</sup>	950
Deformation resistance *	ASTM D621	%	7
Coefficient of thermal expansion **		1/K.10 <sup>-5</sup>	13
Compress strength at 1% deformation (23°C)	DIN53454	N/mm <sup>2</sup>	9
Service temperature***		°C	-200/+260

\* (24 Hours @ 23°C – 15 N/mm<sup>2</sup>)

\*\* ( 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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