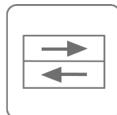


# M SEALS PTB40-BRD58

## Bronze Filled PTFE

### MATERIAL DATA SHEET (Version 6.0 – 05.2022)



#### Description

M Seals PTB40-BRD58 material is a modified PTFE which has been reinforced with Bronze as the filler. The addition of Bronze fillers to PTFE provides higher compressive strength, increased hardness, excellent sliding ability, lower wear properties and lower creep values.

PTB40-BRD58 bronze filled PTFE material is commonly used for O-Ring energised composite seals, guide rings, wear rings and bushes. Bronze filled PTFE is mainly utilised for seals in lubricated hydraulic systems, the use of this material in water or water-based fluids should be avoided.

#### Physical Properties

Property	Test method	Unit	Typical value
Colour			Bronze / Brown
Density	ASTM D792	g/cm <sup>3</sup>	2.98 – 3.16
Hardness	ASTM D2240	Shore D	≥58
Elongation at break	ASTM D4745	%	≥200
Tensile Strength	ASTM D4745	N/mm <sup>2</sup>	≥18
Compressive strength at 1% deformation	ASTM D695	N/mm <sup>2</sup>	≥8
Deformation under load *	ASTM D621	%	≤8
Permanent deformation **	ASTM D621	%	≤5
Coefficient of Linear Thermal Expansion ***	ASTM D696	10 <sup>-5</sup> (mm/mm)/ °C	8-11
Dynamic coefficient of friction	ASTM D3702	Points	0.15-0.25
Service temperature		°C	-200 to +260

\* (24 Hours @ 13.7 N/mm<sup>2</sup> cross direction)

\*\* (After release of deformation test)

\*\*\* (+25 to +100°C)

#### Main Characteristics

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

#### Typical Products

- Composite seals
- Wear strip
- Bearing rings / guide rings
- Bushes
- Bespoke parts

#### Typical Applications

Due to its good compressive strength and sliding ability, PTB40-BRD58 is an excellent material choice for composite seals, guide rings, wear rings, slideways and bearing bushes working in lubricated hydraulic fluids.