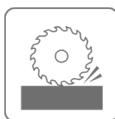
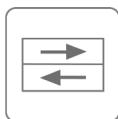


M SEALS PTB40M-BRD60

Lubricated Bronze Filled PTFE

MATERIAL DATA SHEET (Version 6.0 – 05.2022)



Description

M Seals PTB40M-BRD60 material is a modified PTFE which has been reinforced with fillers of Bronze and MoS₂. The addition of Bronze fillers to PTFE provides higher compressive strength, excellent sliding ability, lower wear properties and lower creep values and the combination of the additional MoS₂ filler increases the hardness and stiffness of the material while improving the coefficient of friction and wear values in comparison to standard bronze filled compounds.

PTB40M-BRD60 material is commonly used for O-Ring energised composite seals, guide rings, wear rings and bushes working in lubricated hydraulic fluids, 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 ³	3.15 - 3.25
Hardness	ASTM D2240	Shore D	≥60
Tensile Strength	ISO 527	N/mm ²	≥20
Elongation at break	ISO 527	%	≥200
Compressive strength at 1% deformation	ASTM D695	N/mm ²	≥6.5 - 8
Deformation under load *	ASTM D621	%	≤7.5
Permanent deformation **	ASTM D621	%	≤3.5
Coefficient of Linear Thermal Expansion ***	ASTM D696	10 ⁻⁵ (mm/mm)/ °C	9 - 12
Dynamic coefficient of friction	ASTM D3702	Points	0.13
Service temperature		°C	-200 to +260

* (24 Hours @ 13.7 N/mm² 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, wear resistance and sliding ability, PTB40M-BRD60 is an excellent material choice for composite seals, guide rings, wear rings, slideways and bearing bushes working in lubricated hydraulic fluids.

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