M SEALS **POMC-WD83**

Acetal Co-Polymer Engineering Thermoplastic

MATERIAL DATA SHEET (Version 6.0 – 05.2022)

Description

M Seals material POMC-WD83 is an industry standard semi crystalline engineering thermoplastic which is commonly referred to as POM, TAL and / or Acetal. It has high mechanical strength, rigidity, excellent wear resistance and good sliding properties. Very low moisture absorption provides this material with good dimensional stability, making POMC-WD83 a highly versatile engineering thermoplastic material which can be used for a wide range of components in multiple industries.

Physical Properties

Property	Test method	Unit	Typical value
Colour			White
Shore Hardness	Shore D	DIN ISO 53505	83
Yield point	ISO 527	MPa	68
Elongation at break	ISO 527	%	30
Tensile Modulus of elasticity	ISO 527	MPa	3.000
Moisture Absorption in air (23°C / 50% RH)	ISO 62	%	0.2
Density	ISO 1183-1	g/cm^3	1.41
Surface resistivity	IEC 60093	Ohm	10^{13}
Volume resistivity	IEC 60093	Ohm cm	10^{13}
Melting Point	ISO 11357	°C	165
Heat Deflection Temperature	ISO 75	°C	110
Coefficient Of Linear Thermal Expansion	*	10^{-6} K^{-1}	110
Service temperature (Long term)		°C	-50 to +100
Service temperature (short term - max)		°C	+140

* (Average between +20 to +60°C)

Main Characteristics

- High mechanical strength
- High Impact strength
- Good dimensional stability
- Low moisture uptake
- Good wear and sliding properties
- Good electrical insulating properties

Typical Products

- Anti-Extrusion / Back-up Rings
- Thrust washers
- Bearing rings / guide rings
- Bushes
- Scraper seals
- Bespoke parts

Typical Applications

Due to its good dimensional stability and low moisture uptake, POMC-WD83 is an excellent material choice for guide rings, bearing rings, bearing bushes, thrust washers, valve seats, scraper rings and back-up rings commonly used in the sealing industry.

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