Rhondama Material Data Sheets for Manufactured Parts

POM/Polyacetal

(FDA Approved)

White in colour (natural) Polyacetal (POM), commonly referred to as POM (Polyoxymethylene) or Acetal. This material has excellent physical and chemical properties to serve a wide range of applications. POM is very stable in wet and dry environments and is recommended for precision and close tolerance parts. POM has very low moisture absorption compared to standard nylons and is also FDA approved.

Resistant against

Water up to 90 °C, HFA Fluids, HFB Fluids, HFC Fluids, Mineral Oils, Vegetable Oils, Fuels and Air Up to 100 °C

Applicable for

Guide Rings, Bushes, Back Up Rings, Scrapers, Housings, Precision Parts

Mechanical, Physical & Thermal Properties

Properties	Condition	Standard	Unit	Value	Unit	value
density/specific gravity	23 °C	DIN 53479	kg/m³	1410	g/cm³	1,41
hardness	23 °C	ISO 868	Shore D	85 ±3	Shore D	85 ±3
ball indentation hardness	23 °C	DIN 53456 H135/30	MPa	160	psi	23000
tensile strength	23 °C	ASTM D 4745-79	MPa	70	psi	10100
elongation at break	23 °C	ASTM D 4745-79	%	40	%	40
compressive strength	23 °C	DIN 53455	MPa	88	psi	12800
coefficient of thermal expansion	25 °C - 200 °C		K-1 * 10-5	11	K-1 * 10-5	11
coefficient of friction *	23 °C		µ	0,28	µ	0,28
minimum service temp			°C	-45	°F	-49
maximum service temp			°C	100	°F	212

* coefficient of friction dry dynamic Steel 16MnCr5 v=0,6m/s; p=0,05 MPa; t=5h

For further advice please contact us on 01509 218149 or email us using enquiries@rhondamaltd.com