



**High
Performance
Polymer™**

ENGINEERED POLYMER SOLUTIONS

Polyacetal (POM) Fastener Data Sheet

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Polyacetal Fastener Properties:

Mechanical Properties	Unit	ASTM Method	Value
Tensile Strength	MPa	D638	60
Tensile Elongation	%	D638	60.0
Bending Strength	MPa	D790	90.0
Bend Elastic Constant	GPa	D790	2.58
Izod Impact Strength	J/m	D256	63
Rockwell Hardness	M Scale	D785	M80

Thermal Properties	Unit	ASTM Method	Value
Deflection under load Temperature (1.82MPa)	°C	D648	110
Continuous use Temperature	°C	UL746B	95
Combustibility		UL94	HB

Electrical Properties	Unit	ASTM Method	Value
Volume Resistance	$\Omega \cdot \text{cm}$	D257	1×10^{14}
Insulation Breakdown strength		D149	19KV/mm
Arc Resistance	Sec	D495	240
Permittivity (10^6Hz)		D150	3.7
Dielectric tangent (106Hz)		D150	0.0070

Physical Properties	Unit	ASTM Method	Value
Specific Gravity	-	D792	1.41
Water Absorption Rate ($23\text{ }^\circ\text{C} \times 24\text{Hr}$)	%	D570	0.220

Polyacetal Chemical Resistance Data:

Acid	Resistance
Hydrochloric acid 10%	X
Sulphuric acid 10%	X
Sulfuric acid 50%	X
Nitric acid 10%	X
Nitric acid 50%	X
Hydrofluoric acid 10%	X
Hydrofluoric acid 50%	X
Phosphoric acid	X
Formic acid	X
Acetic acid	Conditional
Citric acid	Conditional
Chromic acid	X
Boric acid	-

Alcohol	Resistance
Methanol	○
Butanol	○
Glycol	○

Aldehyde and Ketone	Resistance
Acetaldehyde	○
Acetone	-
Formalin	-
Methyl ethyl ketone	-

Base – Alkali	Resistance
Ammonia	X
Sodium hydroxide 10%	Conditional
Calcium hydroxide	○

Halogenated organics	Resistance
Carbon tetrachloride	-
Perchloro ethylene	-
Freon 12	-

Hydrocarbon	Resistance
Benzene	-
Toluene	-
Xylene	-
Cyclohexane	-
Naphthalene	-

Inorganic chemicals	Resistance
Water	○
Hydrogen sulphide (gas)	Conditional
Sulphur dioxide	○
Sodium chloride	○
Ammonium nitrate	Conditional
Sodium nitrate	Conditional
Sodium acetate	○
Calcium carbonate	○
Calcium chloride	○
Magnesium chloride	○
Magnesium sulphate	○
Zinc sulphate	Conditional
Hydrogen peroxide	X

Other Chemicals	Resistance
Urea	○
Detergent	Conditional

- : Can be used
 X : Cannot be used
 - : No data

* Chemical test data shown conducted at room temperature (23°C) *

* Chemical resistance changes in line with operating environment, ensure to test under actual use environment beforehand. *

Storage conditions

- Avoid direct sunlight and store at room temperature
- Keep fasteners in the original plastic bag to avoid dust.
- Please store in a sealed container if removed from zip lock bag.
- Do not place heavy objects on fasteners to avoid damage