



SmithPlast™

Poly-oxy-methylene (POM)

COMPOSITION

SmithPlast® POM is a white (natural) Polyacetal, 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. It can be manufactured into many different components including gears, rollers, sprockets, and augers.

APPLICATION

It is mainly used in friction bearings, friction strips, gears, plugs, tool supports, insulators, housing parts, guide rings, bushes and as high precision parts.

TECHNICAL DATA

Physical Property	Unit	Value
Specific gravity	g/cm ³	1.39
Water absorption	%	0.2
Upper Temperature	°C	110
Lower Temperature	°C	50

Mechanical Property	Unit	Value
Tensile Strength at yield	MPa	63
Elongation at yield	%	10
Tensile Strength at break	Mpa	-
Elongation at break	%	31
Ball indentation	MPa	135
Flexural Strength	Mpa	-
Elasticity Modulus	MPa	2600

Electrical Property	Unit	Value
Volume Resistivity	?*cm	?1013
Surface Resistivity	?	?1013
Dielectric Strength	kV/mm	40
Tracking Resistance	-	CTI 600

Other Property	Unit	Value
Bond Ability	-	Fair
Friction Co-efficient	-	0.35
Flammability	-	HB
UV Stabilization	-	Fair

All values are attributes of the used raw materials.

The physical data contained in this table are typical values. They are obtained on test specimens under specific conditions and represent average values of a large number of tests. The results obtained on these tests specimens cannot be applied to finished parts without reservations, as behaviour is influenced by processing and shaping.

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