

POM



Polyoxymethylene (POM), commonly known as acetal or polyacetal, is a high-performance engineering thermoplastic renowned for its exceptional stiffness, low friction, and outstanding dimensional stability.

PROPERTIES	ITEM	METHOD ISO/(IEC)	UNIT	POM	
	Color	-	-	white/black	
	Density	1183	g/cm ³	1.41	
	Water absorption	After 24/96h immersion in water of 23°C	62	mg	20/37
			62	%	0.24/0.45
		At saturation air 23°C, 50%RH	-	%	0.20
	At saturation in water of 23°C	-	%	0.85	
Thermal Properties	Melting Temperature	-	°C	165	
	Thermal conductivity at 23°C	-	W/(m·K)	0.31	
	Coefficient of linear Thermal expansion	Average value btw23~60°C	-	10 ⁻⁶ /k	110
		Average value btw23~100°C	-	10 ⁻⁶ /k	125
	Temperature of Deflection under load	Method A : 1.8Mpa	75	°C	105
	Max. allowable Service temp. in air	For short periods	-	°C	140
		Continuously : 5,000/20,000h	-	°C	115/100
Min.service temperature		-	°C	-50	
Flammability	UL94 (3/6mm thickness)	-	-	HB/HB	
Mechanical Properties at 23°C	Tension test	Tensile stress	527	MPa	62
		Tensile strain at break	527	%	30
		Tensile modulus of elasticity	527	MPa	3100
	Compression test	Compressive stress at 1/2/5% nominal strain	604	MPa	19/35/67
	Izod impact strength-Notched		180/2A	J/m	40
	Rockwell hardness		2039-2	-	R115
Electrical Properties at 23°C	Electric strength	(60243)	kV/mm	20.0	
	Volume resistivity	(60293)	Ω·cm	>10 ¹⁴	
	Surface resistivity	(60293)	Ω	>10 ¹³	
	Relative permittivity:	100Hz	(60250)	-	3.8
		1MHz	(60250)	-	3.8
	Dielectric dissipation factor:	100Hz	(60250)	-	0.003
		1MHz	(60250)	-	0.008
Comparative tracking index(CTI)		(60112)	-	600	

Table provided are general and may vary TW/TH

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*The previous table is a valuable help in the choice of a material. The data listed here fall with in the normal range of product properties of dry material.

However, they are not guaranteed and they should not be used to establish material specification limits nor used alone as the basis of design.

APPLICATIONS

Small gear wheels
Eyeglass frames
Ball bearings
Ski bindings

Fasteners
Gun parts
Knife handles
Lock systems