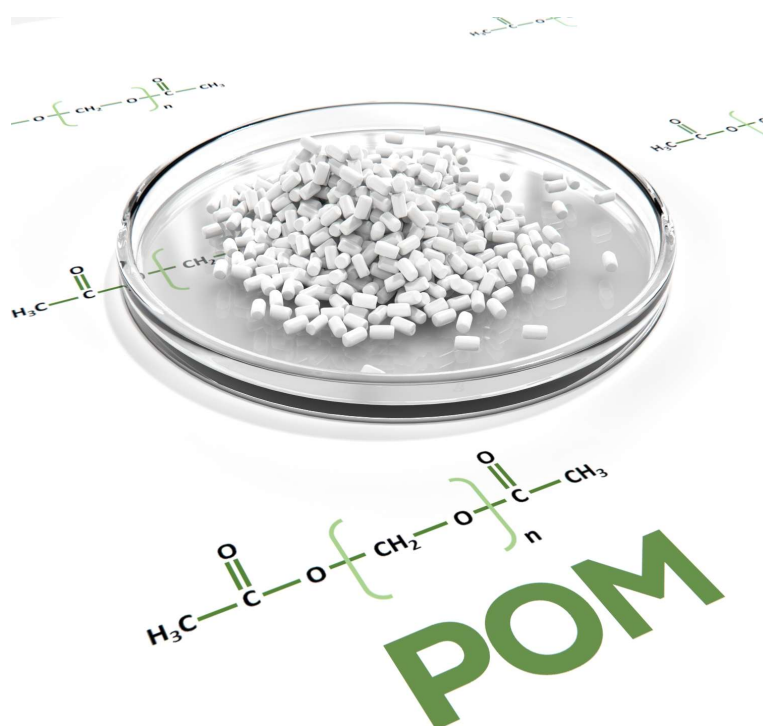




POM (Acetal) — Material Datasheet

Polyoxymethylene (acetal) — a low-friction engineering thermoplastic with good strength, stiffness, fatigue resistance, and dimensional stability.

Physical Properties

Property	Unit	Value
Density	g/cm^3	1.41
Water absorption (24 h, 23 °C)	%	0.25

Mechanical Properties

Property	Unit	Value
Tensile strength (yield, 23 °C)	MPa	65
Tensile modulus	GPa	2.8
Elongation at break	%	25
Notched Charpy impact	kJ/m^2	6
Hardness (Rockwell M)	—	M89

Thermal Properties

Property	Unit	Value
Melting temperature	°C	165
HDT (1.8 MPa)	°C	105
Continuous use temperature	°C	95
Thermal conductivity	W/m·K	0.31
Coefficient of linear thermal expansion	10 ⁻⁶ /K	110

Electrical Properties

Property	Unit	Value
Dielectric strength	kV/mm	22
Volume resistivity	Ω·cm	≥1×10 ¹⁴
Relative permittivity (1 MHz)	—	3.8
Dissipation factor (1 MHz)	—	0.007

Flammability & Environment

Property	Unit	Value
Flammability (UL 94)	—	V-2
Limiting Oxygen Index (LOI)	%	15
Chemical resistance	—	Good vs fuels/solvents; avoid strong oxidizers
Weathering resistance	—	Moderate; not recommended for prolonged UV