



POM C – Delrin®

Polyoxymethylene | Polyacetal | POM-C

✓ FDA/EU Approved – Suitable for Food Contact

Material Type

POM (Copolymer)

Form: Flat / Plate / Rod
 Combustion Class: **HB (UL 94)**

MATERIAL DESCRIPTION

POM C (Polyoxymethylene / Polyacetal) is a copolymer acetal that stands out among engineering plastics with its high mechanical hardness, dimensional stability and low coefficient of friction. Thanks to its high modulus of elasticity (2600-3000 MPa), it is widely used in the production of metal alternative parts. It offers long-lasting performance in precision gear, bearing and medical device parts with its wide operating temperature (-50/+100°C), oil and solvent resistance.

MECHANICAL AND PHYSICAL PROPERTIES (ISO/ASTM)

Feature	Unit	Value	Feature	Unit	Value
Intensity	g/cm ³	1.41	Shore D Hardness	—	80 – 85
Yield Stress	MPa	65 – 70	Friction Coefficient	—	0.25 – 0.35
Yield Elongation	%	10 – 15	Melting Temperature	°C	165 – 170
Breaking Stress	MPa	60 – 65	Softening Temperature	°C	140 – 150
Elongation at Break	%	30 – 40	Work. Gene. Coefficient	10 ⁻⁴ K ⁻¹	1.1
Elasticity Modulus	MPa	2600 – 3000	Dielek. Strength	kV/mm	20 – 40
Impact Resistance	kJ/m ²	Unbreakable	Surface Resistance	Ohm	10¹⁵
Water Absorption (24h)	%	0.20	Service Temperature	°C	-50 / +100

AREAS OF APPLICATION

Precision Gear and Mechanical Parts

Plain Bearings and Bushings

Medical Device Components

Food Line Parts (FDA)

Couplings and Fasteners

Pneumatic / Hydraulic Parts

CHEMICAL RESISTANCE AND GENERAL PROPERTIES

Shows excellent resistance to oils, greases, fuels and most organic solvents; It is definitely a preferred alternative. Offers moderate resistance to acids and bases; Concentrated strong acids should be avoided. Although it is weldable, it must be worked with appropriate parameters. The low UV resistance of POM C requires the selection of UV stabilized versions for outdoor applications. It is widely preferred as a light, precise and long-lasting solution that replaces metal parts in the automotive, machinery manufacturing, medical and food processing sectors.

The technical information specified in this document reflects the reference values of international ISO/ASTM standards. Chemical resistance may vary depending on concentration, temperature and exposure time.

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