



Acetal

POM, Polyoxymethylene, Delrin®
Polyacetal, Polyformaldehyde

Description and Overview

Acetal is a mechanical thermoplastic with high strength and stiffness coupled with enhanced dimensional stability and ease of machining. As a semi-crystalline material, acetal is also characterized by a low coefficient of friction and good wear properties even in low temperate environments. Copolymer acetal and homopolymer Delrin® are FDA and 3A-Dairy approved.

Interstate Plastics offers acetal for precision industrial and mechanical parts.

Applications and Uses

Acetal is an ideal material for many applications widely used in automotive, mechanical, electrical, food and beverage, medical and consumer industries.

Copolymer acetal features no centerline porosity, better performance at higher temperatures and higher chemical resistance to fuels and solvents versus Delrin®. Homopolymer Delrin® offers slightly better mechanical properties including tensile strength, impact strength and creep resistance.

- Gears, chains, screws, nuts, springs, locks, hinges
- Sliding and guiding elements
- Housing parts, pump parts, vehicle tanks
- Valve bodies
- Insulators, bobbins and connectors
- Parts for electronic devices, televisions, telephones
- Fuel sender units
- Door lock systems and locks
- Insulin pens, metered dose inhalers (MDI)
- Kitchen appliances
- Consumer hardware
- Knife and tool handles
- Zippers, picks



Acetal is available in extruded copolymer & homopolymer grades.

Full sheet: 24" x 48" (0.06" through 4" thick)
Rod: (0.187" through 6.0" diameter)

Properties and Specifications

Property	Copolymer Acetal	Delrin®
Density (lbs/in.3 lbs/ft.3)	0.05 86.4	0.05 86.4
Modulus of Elasticity (psi)	380,000	420,000
Yield Tensile Strength (psi)	8800	11000
Break Tensile Strength (psi)	9700	–
Elongation at Yield	9%	–
Elongation at Break	25%	25%
Izod Impact Strength (ft-lbs/in.)	1.00	1.50
Hardness, Rockwell M94/R120	M86	M94/R120
Deflection Temperature @ 66 psi	316°F	336°F
Continuous Service Temperature	195°F	185°F
Moisture Absorption @ Saturation	0.80%	0.09%
Affixable Properties	Chem/Mech	

Properties are typical.
Chem is an abbreviation for chemically affixed with glues, chemicals, or adhesive.
Mech is an abbreviation for mechanically affixed bonding.
Field testing is recommended for any application.

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WARNING: This product can expose you to chemicals including Formaldehyde, CAS 50-00-0, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov



WARNING: This product can expose you to chemicals including Hexachlorobenzene, CAS 118-74-1, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov



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ADVANCED MATERIALS

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