

Petrorays PRODUCTS Co

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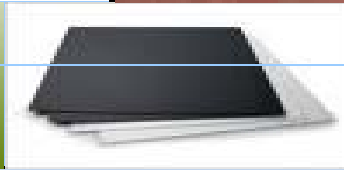
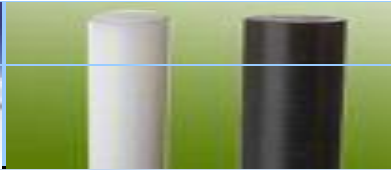
DELRIN (POLYACETAL) RODS & COMPONENTS

Polyacetal sheets, plates and rods are among the strongest and stiffest of all thermoplastics. Polyacetal and Derlin plastic materials are characterized by good fatigue life, low moisture sensitivity, and high resistance to solvents and chemicals. Polyacetal products also contain good electrical properties. Homo Polymer and Copolymer grade of Polyacetal are available including an enhanced bearing grade material.

Polyacetal - POM is a semi crystalline engineering plastic that is beneficial to engineering applications, & is suited to CNC machining

PHYSICAL PROPERTIES

- High tensile strength, impact resistance and stiffness.
- Outstanding fatigue resistance
- Outstanding resistance against automotive fuels, Lubricants, Solvents and many neutral chemicals
- Excellent dimensional stability.
- Very Good electrical insulating properties
- Excellent Mechanical properties (Strength & Stiffness)
- Low co-efficient.
- Wide and use range done to very low temperature



Polyacetal -POM (POLYOXYMETHYLENE) Products

Polyacetal (POM-C) Color: Natural (White) / Black

Polyacetal Co-polymer, (POM-C) is more resistant against hydrolysis, strong alkalis and thermal-oxidative degradation than the polyacetal homo-polymer (POM-H).

Polyacetal (POM-H) Color: Natural (White) / Black

Polyacetal Homo-polymer (POM-H) has higher mechanical strength, stiffness, hardness and creep resistance as well as a lower thermal expansion rate when compared to polyacetal (POM-C) and often it also presents a better wear resistance.

Polyacetal (Polyoxymethylene - POM)

Polyacetal (Polyoxymethylene - POM) is a widely used crystalline engineering thermoplastic

popularly known as Derlin[®] which is a homopolymer Polyacetal which exhibits slightly different characteristics in copolymer grades. Polyacetal is characterized as having an excellent combination of physical properties that makes it suitable for numerous industrial applications.

WIDE APPLICATIONS

Railways:	Pedestal Liner, Bush, pinion, wear pad
Paper mills:	Dryers Gears, Liner, Bush, Pulleys, Rollers
Sugar Mills:	Mill bush, liner, Wear plates, pulley, wear pads
Cement Plants:	Ropeway pulley, Uncoupling wheel, bush
Textile Ind.:	Bevel Gears, Bearings, Bushes
Tyre Ind.:	Guides, Bush, Gear, Bead Separator
Steel Plants:	Slipper pads, Bearings, Gear, Insert
Chemical Plants:	Wear pads, Scrapper
Automobiles:	Wear pads, Rings, Brush, Washers
Bottling Plants:	Star wheel, Guides, Sprockets

Polyacetal is used in many static and dynamic industrial applications replacing materials like; steel brass, bronze, copper and aluminum. Polyacetal have improved part life because of; better wear more chemical and corrosion resistance. These materials reduce factory noise and will reduce or eliminate the need for lubricants.

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PROPERTIES OF POM-POLYACETAL RODS

PROPERTY	ASTM	POM-POLYACETAL
Specific Gravity	D792	1.41
P.S.I. Tensile Strength	D638	8800
% Elongation	D638	40.75
P.S.I. Comprehensive Strength	D695	16000 (10% defl.)
Impact Strength(1/2x1/2 in. notched)	D256	1.0-1.5 (1/2x1/2inbar)
Hardness Rockwell	D785	M78-M80
10 ⁵ P.S.I. 73 ⁰ F Flexural Modules	D790	3.75
Coefficient of friction	-	0.18
-10 ⁴ cal sec cm ³ C cm Thermal conductivity	D177	5.5
Thermal expansion 10 ⁵ per ⁰ C	D696	8.5
Resistance to heat ⁰ C (Continuous)	-	80 ⁰ C to 120 ⁰ C
Ω - cm (23 ⁰ C50%) Volume resistivity	D257	10 x 10 ¹⁴
1/8 in thickness volts mil Dielectric strength	D149	500 (90 Mil)
1 KHz Dielectric constant	D150	3.7
1 KHz Dissipation (power) factor	D150	0.0010 (40mil)
24/j3.2 mm % water absorption 24hr. 3.2 thickness, %	D150	0.22
in mm Burning rate	D570	1.0 - 1.1
Effect of weak acids	D635	Resistant to some
Effect of weak acids	D543	Attacked
Effect of weak alkalies	D543	Attacked
Effect of strong alkalies	D543	Attacked
Effect of organic solvents	D543	Excellent resistance to practically all solvents.