PETRORAYS
PRODUCTS CO.
Think Polymers.... Think Petrorays

CATALOGUE

POLY PROPYLENE RODS, SHEETS & COMPONENTS

Polypropylene copolymers have outstanding chemical resistance and show the highest resistance of all thermoplastics to organic chemicals. High density polypropylene has some similarity with Polypropylene co-polymers in respect of chemicals resistance, although here again Polypropylene co-polymers possesses the additional advantages of being usable at higher operating temperature. Both the polymers have similar solubility parameters and tend to swell by the same solvents. In both the cases the absence of any possible interaction between the crystalline polymer and the liquid prevents solution of the polymers in any liquid at room temperature. Polypropylene copolymers also possess an extremely high resistance to inorganic environments. It is not attacked by aqueous solution of inorganic salts not by most mineral acids and bases, even when in concentrated form, though it is liable to be attacked by oxidising agents e.g. 100% fuming Nitric acid and Sulphuric acid or the halogens.

ADVANTAGES OF P.P. COMPONENTS

✔ Excellent abrasion resistance	✔ Energy Savings
✔ High Impact strength	✔ Resistance to stress, cracking & UV rays
✔ Low Co-efficient of friction	✔ Has smooth & hard surface
✔ Water Repellant	✔ Excellent di-Electric Strength
✔ Lighter than metal	✔ Easily Machinable
✔ Corrosion Resistance to most acids & chemicals	✔ Does not require bearings seals

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

For More Details, Please Contact:

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PROPERTIES OF POLYPROPYLENE EXTRUDED RODS

PROPERTY	ASTM	POLYPROPYLENE
Specific Gravity	D769	0.902 - 0.910
P.S.I. Tensile Strength	D638	4300 - 5500
% Elongation	D638	200.0 - 700.0
P.S.I. Comprehensive Strength	D695	5500 - 8000
Impact strength (1/2x1/2 in. notched)	D256	0.5 - 2.280 (1/8 x 1/2 In bar)
Hardness Rockwell	D785	80 -110
10^5 P.S.I. 73 ^{0}F Flexural Modulus	D790	1.7 - 2.5
Coefficient of friction		0.3
-10 ^{4}cal sec cm^3 C cm Thermal conductivity	C177	2.8
Thermal Expansion 10^5 per ^{0}C	D696	5.8 - 10.2
Resistance to heat ^{0}C (Continuous)		110^0 C
Ω - cm (23 ^{0}C50%) Volume resistivity	D257	1016
1/8 in thickness volts mil Dielectric strength	D149	500-650
1 KHz Dielectric constant	D150	2.2 - 2.6
1 KHz Dissipation (power) factor	D150	0.0005 0.0018
24 / j3.2 mm% Water absorption 24 hr. 3.2 thk, %	D570	0.01 - 0.03
in mm Burning rate	D635	0.75 - 0.82
Effect of weak acids	D534	None
Effect of strong acids	D543	Attacked slowly by oxidizing acids
Effect of weak alkalies	D543	None
Effect of Strong Alkalies	D543	Resistant
Effect of organic solvents	D543	Resistant below 80^0 C

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