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

CATALOGUE

CAST NYLON (POLYAMIDE) RODS, SHEETS & COMPONENTS

CAST NYLON is generally superior to extruded Nylon-6.Since it is made by dirtect polymerisation of caprolactam, the polymer has never been melted and thus has been subjected to any thermal degradation. In addition, its molecular weight (upto 10,00,000) is several fold higher than molecular weight of extruded nylon6(30,000). Since physical properties of Thermoplastics improve with increasing molecular weight it has Higher tensile and compressive strength, Greater hardness and modulus of elasticity, Higher wear resistance, Lower distortion at Higher temperatures, Lower moisture, Better dimensional stability, Better resistance to solvents than Extruded Nylon 6.Thus for Bearings, Gears and Structural applications.

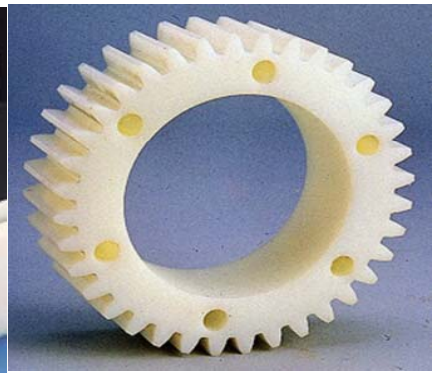
CAST NYLON is the result of a new technology in Plastics, which makes available to you any shape or size. No longer are you restricted to the smaller size made by extrusion or injection molding methods. Any type of heavy component is now within your reach. The casting process upgrades the Nylon 66 but with lower moisture absorption and improved strength, it enables production of stress-free stock shapes of almost unlimited size.

ADVANTAGES OF CAST NYLON 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 CAST NYLON

PROPERTIES		TEST METHOD	UNIT	VALUES
Specific Gravity		ASTM D792	g/cm^3	1.14 - 1.16
Water absorption @20°C		ASTM D 570	%	0.3 to 3

MECHANICAL PROPERTIES

PROPERTIES		TEST METHOD	UNIT	VALUES
Tensile Strength at yield	-	ASTM D638	Kg/cm^2	750 - 850
Compression strength at yield	-		Kg/cm^3	940
Elongation at yield	-	ASTM D638	%	12 - 13
Durometer (23°C)	-		D	D 82 - 89
E- Modulus	-	ASTM D638	Kg/cm^3	24000 to 26300
Temperature of Deflection	-		°C	80
Flexural Strength	-	ASTM D	Kg/cm^2	1000 - 1350
Notched Impact Strength	-	ASTM D	m - Kg/cm	5 - 11
Hardness Rockwell (23°C)	-			R 107 - 112
Resistance to heat (Continuous)	In Air In water In Oil			80°C 100°C 140°C
Impact strength at (20°C)	-	-	Kg cm/cm	10
Melting Point	-	ASTM D569	°C	215
Effect of weak acids	-			Resistant
Effect of strong acids	-			Attacked
Effect of weak alkalies	-			None
Effect strong alkalies	-			None
Effect of Organic Solvents	-			Resistant to common solvents

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