



# ARIHANTRON

**HIGH WEAR RESISTANCE CAST POLYAMIDE (PA6) (CAST NYLON 6)**

The Complete Range of Engineering Plastics



**PATIL GROUP**

## PATIL THERMOPLASTICS

AN ISO 9001 : 2015 Registered Company

( A PATIL GROUP OF COMPANY )

REG. OFFICE

PLOT NO 12 (164), DR. PATANGRAO KADAM INDUSTRIAL ESTATE, PALUS

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ISO 9001 : 2015



### 'Arihantron' Cast Nylon (Cast Polyamide) Products

'Arihantron' Cast Nylon is High Molecular Weight Material produced by controlled chemical reaction & by active anionic polymerization of Caprolactum & Copolymer

### 'Arihantron' Cast Nylon Standard Stock Size

Sheets	Thickness 8 mm & above, size 1 Mtr. x 1.5 Mtr.
Rods	Dia. 30 mm to 1.5 mtr. & maximum length 2 Mtr.
Tubes	Minimum ID 20 mm, maximum OD 1500 mm Lth. 2 Mtr.



### Application Industries

Engineering Industries, Material Handling Equipments, Hoist & Crane Manufacturing, Railway, Textile, Defense, Automobile, Marine, Process Industries, Sugar, Cement, Food, Dairy, Distillery, Pump Industry, Chemical Industry, Steel industries, Mining Industries, Earth moving Machinery etc.

### Application Area

Bush Bearings, Straight Bush, One Side Collar, Both Side Collar, Split Type- in one side collar & both side collar, Swivel Bushes, Throttle Linkages, Shackle Bushes, Gaskets & Packing, Sprockets, Gears, Screws, Nut & Bolts, Timing Pulleys, Dryer Gears, Crane Pulleys, Guide Rollers, Idler, Roller Wheels with or without Metal Insert, Balls, Valve Seats, Cams, Wear Pad & Plates, Sliding Pads, Liners, Propeller Blades, Pedestal Liners, Slipper Pad, Lining of Silo, Bunkers, Chutes, Truck, Rail Wagons.

### 'Arihantron' Cast Nylon, Tailor made (Machined) Components



Gears

Sprockets



Wheels & Rope Pulleys

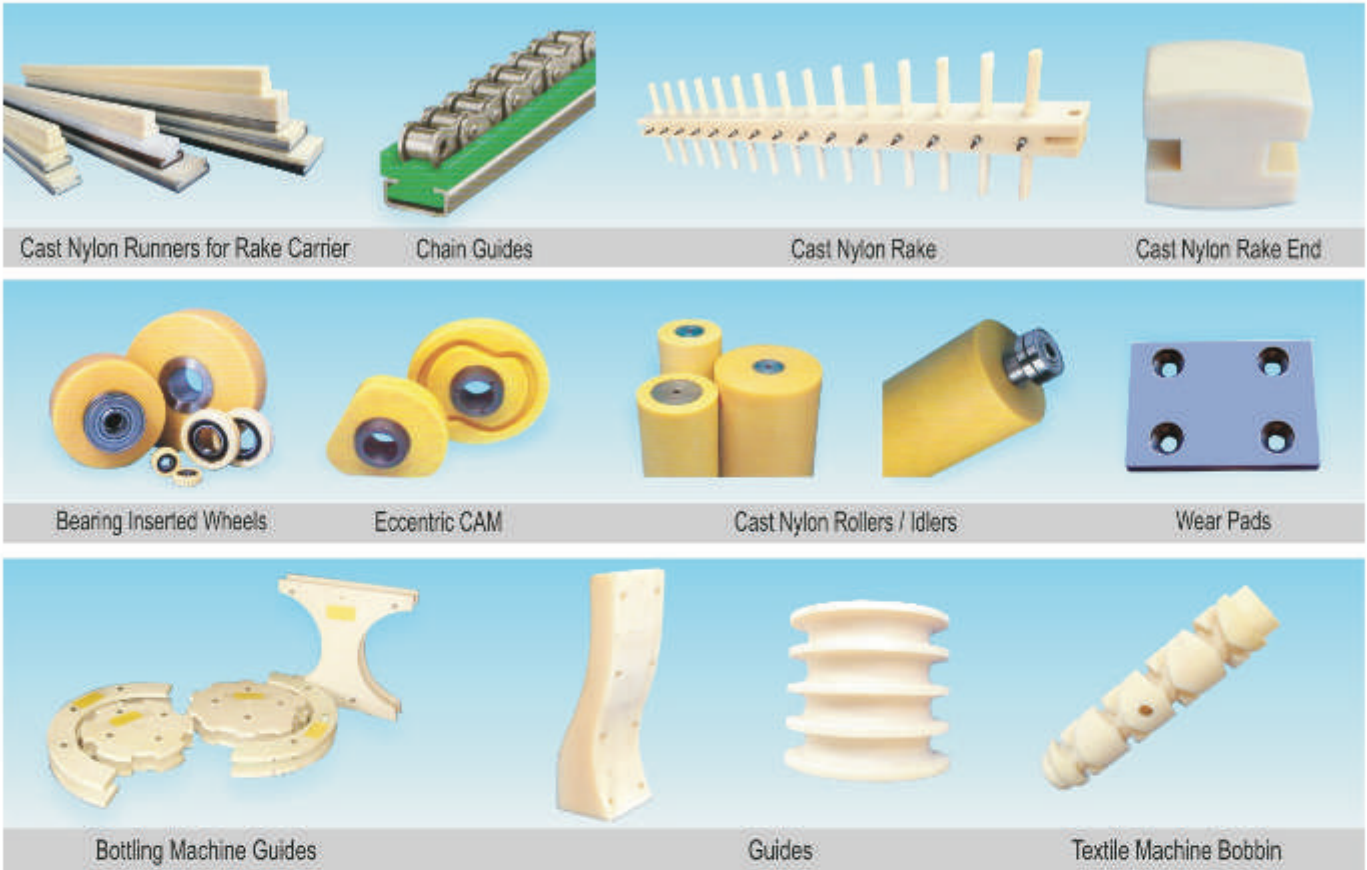


Steel Coil Stoppers & Storage System in Cast Polyamide

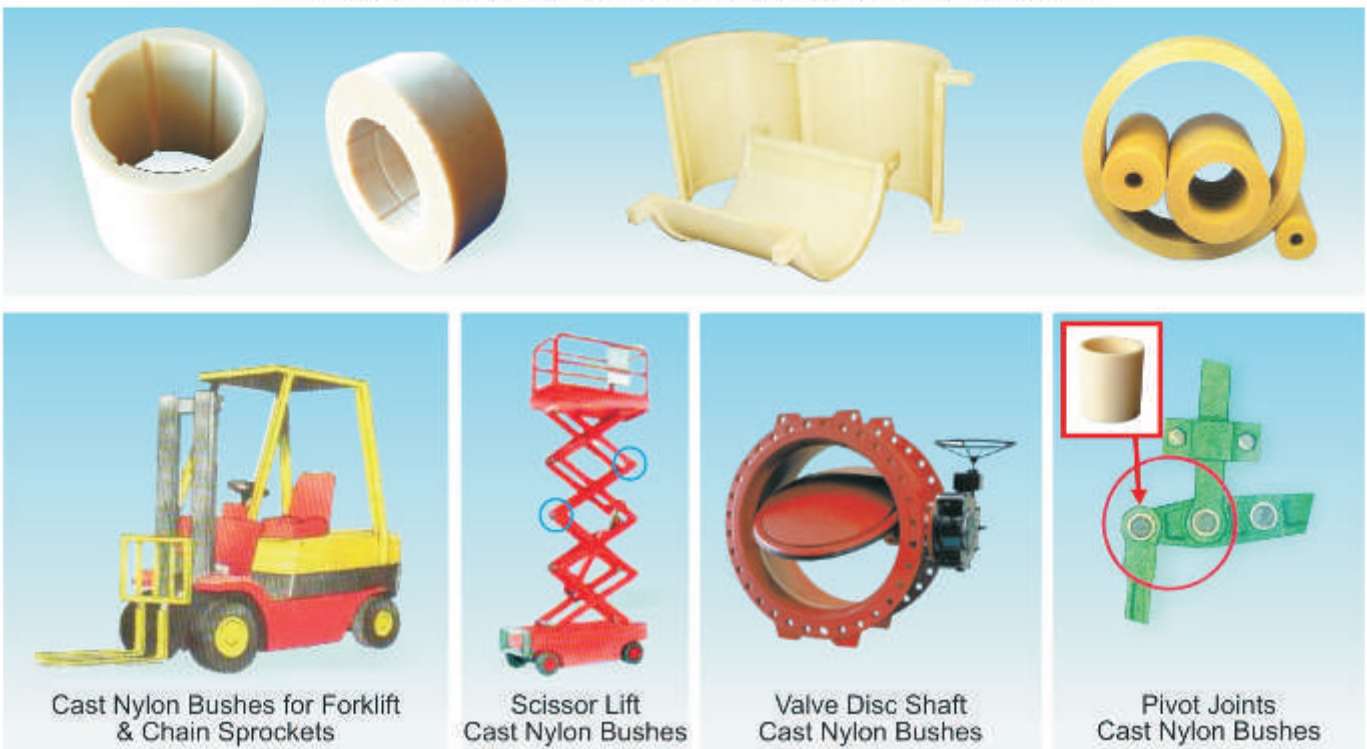
Cast Nylon Spacer For De-Coller Mandrel



## Material Handling System Components

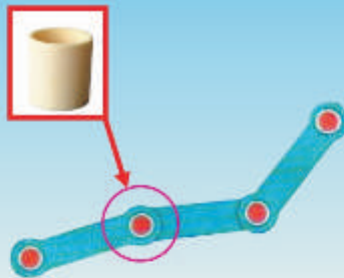


## Bushes for Various Applications in Replacement of Brass, Bronze, Gunmetal, SS or Any Metallic Material

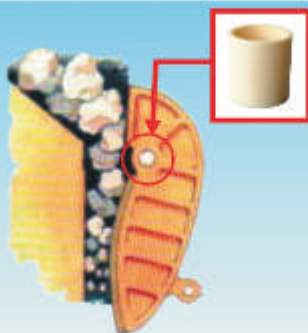




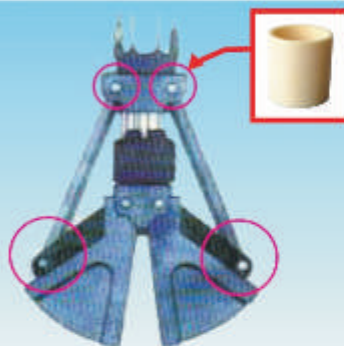
Hydro Power Gate Polymer Bushes



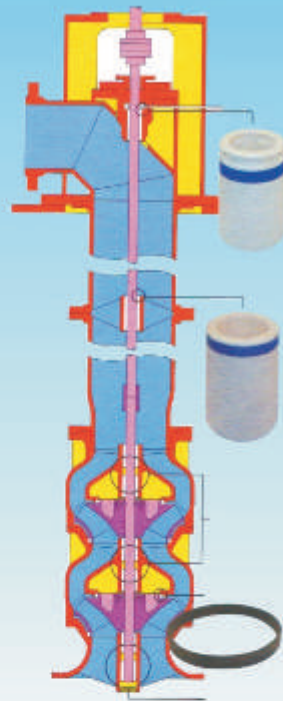
Escalators & Elevator Chains Cast Nylon Bushes



Crusher Cast Nylon Bushes



Grab Bucket Cast Nylon Bushes



Vertical Turbine Pump  
Cast Nylon Bush Bearings



Shipyard Dock Fender Block



Chain Link



Transmission Screw



Impeller



Cast Nylon Bolt



Stainer



Oil Distribution Manifold



Pipe Expander

### SPECIFIC 'ARIHANTRON' CAST NYLON PRODUCT ADVANTAGES

'ARIHANTRON' CAST NYLON Products replaces Metals even for critical engineering applications on account of their outstanding following characteristics:

- Light in weight
- Self Lubricating
- Economy with longer service life.
- Stress free and high abrasions resistance.
- Tough with high tensile and compressive strength.
- Runs quietly requires no maintenance.
- Shock resistance.
- Chemical resistance.
- Excellent machinability.
- High temperature resistance.
- Great rigidity and hardness.
- Excellent sliding and emergency running properties.
- Corrosion resistant.
- No, or very low moisture absorption.
- Virtually no limit to the variety of dimensions and shapes.
- Good dimensional stability.



## 'Arihantron' Cast Nylon (Cast Polyamide) Material Grades

Property	Condition	Test Method	Unit	VALUE		
				'Arihantron' Grade 'N'	'Arihantron' Grade 'L'	'Arihantron' Grade 'S'
PHYSICAL PROPERTIES						
Specific Gravity	Dry	ASTMD 792	----	1.15 - 1.16	1.13	1.14
Water Absorption	Dry	ASTMD 570	%	0.6	0.6	0.6
24 hrs. Saturation	Dry	ASTMD 570	%	0.6 - 7.0	0.6 - 7.0	4.0 - 5.0
MATERIAL PROPERTIES						
Tensile Strength	Dry	ASTMD 638	Kg/cm <sup>2</sup>	860	760	650
	Moist	ASTMD 638	Kg/cm <sup>2</sup>	660	610	520
Elongation at break	Dry	ASTMD 638	%	10 - 40	40 - 80	40 - 60
	Moist	ASTMD 638	%	40 - 80	100 -150	70 -100
Modulus of Elasticity	Dry	ASTMD 638	Kg/cm <sup>2</sup>	38000	30000	32000
	Moist	ASTMD 638	Kg/cm <sup>2</sup>	24400	20000	22000
Notched Impact strength	Dry	DIN 53453	Kg/cm <sup>2</sup>	2.5 - 3.0	3.5 - 4.5	8.0 - 10.0
	Moist	ASTMD 638	Kg/cm <sup>2</sup>	5.10	6.0 - 12.0	22 - Dec
Impact strength	Dry	DIN 53453	Kg/cm <sup>2</sup>	No Break	No Break	No Break
Shore Hardness	Dry	DIN 53453	Scale D	83 - 85	80 - 82	80 - 82
	Moist	DIN 53453	Scale D	78 - 80	76 - 78	77 - 79
Coefficient of Friction						
(Nylon/steel) No Lubrication	----	----	----	0.30 - 0.35	0.30 - 0.35	0.15 - 0.29
Initial lubrication	----	----	----	0.05 - 0.10	0.05 - 0.10	0.05 - 0.10
THERMAL PROPERTIES						
Melting point	Dry	ASTMD 569	°C	220	205	205
Flammability	Dry	ASTMD 635	---	Self Ext.	Self EXL	---
Heat Distortion Test						
66 PSI	Dry	ASTMD 648	°C	150	143	----
264 PSI	Dry	ASTMD 648	°C	76	71	----
Maximum Service Temp.						
Continuous	Dry	----	°C	100 - 110	100 - 110	100 - 110
Intermittent	Dry	----	°C	130 - 160	130 - 160	130 - 160
At Low Temp.	Dry	----	°C	-40	-40	-40
Coefficient of thermal Expression	Dry	ASTMD 696	10 - 6 / °C	80	80	80
ELECTRICAL PROPERTIES						
Dielectric Strength	Moist	DIN 534481	KV/mm	15 - 20	15 - 20	15 - 20
Volume Resistively	Moist	DIN 534482	Ohm x cm	3-5 x 10-12	3-5 x 10-12	3-5 x 10-12
Surface Resistively	Moist	DIN 534482	Ohm	1-3 x 10-10	1-3 x 10-10	1-3 x 10-10
Dielectric Constant 10 Hz	Moist	DIN 534483	----	12	12	12
Dissipation factor 10 Hz	Moist	DIN 534484	----	0, 15	0, 15	0, 15
Resistance to Tracking	Moist	DIN 534480	0	KV 600	KV 600	KV 600





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We **PATIL THERMOPLASTICS** (A Patil Group Of Company), an ISO 9001:2015 certified company, is specialized in manufacturing **CAST NYLON (CAST POLYAMIDE PA6)**. We are located in Palus, Sangli district, Maharashtra, India. We have area more than 5000 Square meters and own a series of advanced equipments and facilities.

Since establishment we have introduced up-dated technologies and innovation of emphasized the training and innovations of technologies and talents as well. Nowadays we are having annual capacity of more than 100 Tons in **CAST NYLON** manufacturing. Because of high quality and competitive pricing, **PATIL THERMOPLASTIC** has won good reputation at home as well as abroad in more than 1000 customers, and has good selling in Mid east, European and African Market.

**PATIL THERMOPLASTICS** make **CAST NYLON PRODUCTS** are widely used in Sugar factories, Chemical Factories, Food industries, Cement industries, Mining industries, Engineering industries, Railways, Defense, Navy, Ship Building industries etc. Also Continuous supply to OEM like Thyssen Krupp industries, NHEC, ISGES Thomson etc. Also we can manufacture specific products according to customer requirements.

Our company people have always been sticking to the managing theory of "Quality innovation and Credibility", seeking existence with quality developing with innovation, cooperation with credibility.

## Few of our associated and valuable customers:-

- Steel plants.
- Thermal Power Plants
- Cement Plants
- Steel Foundries.
- Sugar Factories.
- Milk Processing Units.
- Alcohol Industries.
- Mining Industries.
- Steel Wire drawing industries.
- Food Processing units.
- Textile Industries.
- Printing Industries
- Oil Mills
- Coal Handling Plants.

### Government Institutions

- Indian Railway
- Indian Navy
- Rail Coach Factory.
- Hydropower Plants.
- Thermal Power Plants.
- DRDO
- Defense

