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## Bhagyalaxmi Rolling Mill Pvt. Ltd.

Gut. No.30, Daregaon, Additional MIDC Area, Jalna, Maharashtra 431213 Toll Free No. 1800 209 5151 Website : www.polaad.in

Bhagyalaxmi Rolling Mill Pvt. Ltd.



# THE RAPIDLY GROWING STEEL SECTOR

The steel sector has been a major contributor to the Indian economy for many years. The easy availability of raw materials such as iron-ore and affordable labor are some of the vital factors attracting large-scale growth. The Indian Steel Industry has always modified its techniques according to the changing times. It has been adaptable to every new technology and process.

India was the world's second-largest steel producer in 2019 with an overall production of 111.2 million tonnes (MT). These huge numbers and achievements that the steel industry has witnessed would not have been possible without the steel manufacturers. We are proud to be one of them! Polaad is a name that's etched to quality steelmaking for more than a decade and a half.

## **ABOUT US**

Polaad stepped its foot into the steelmaking industry in the year 2005. We are a team of experienced founders and managing directors having vast experience in steelmaking. We entered the steelmaking sector with all the research and the study on various aspects. With earlier experience and now a decade and a half older, we are more than ready to serve you with extensive services and products!

Polaad believes in the Government of India's Initiative, 'Make in India', and strives to strengthen the Indian economy by becoming self-reliant in steel production. Diverse initiatives are being planned by the Government for becoming self-reliant in steel production and we, at Polaad, always believe and support such initiatives because we are the proud sons of our soil!



## THE POLAAD VALUES

We, at Polaad, just as the tricolor of India, have trivalues! The values are Transparency, Commitment, and Integrity. The foundation of Polaad is built on these values. All the members of the Polaad family follow these values with full dedication and determination. Polaad is appreciated and known for staunchly following these values.

#### Transparency

We, at Polaad, assure Transparency at every step! Transparency is what makes our pathway towards success crystal clear. Every process at Polaad goes through stringent quality checks and assures complete clarity on every aspect to the customer.

#### Commitment

We deliver what we commit! We never miss the deadlines given to our associates or customers. This is what makes us one of the most trusted brands in the steelmaking industry. We don't just build products, we build trust through commitments!

#### Integrity

그 간데 그 건설이 나가지 그 그 것이 아이트 그 같은데. 그 가지네네이다. 그 그 같은 것이 아이들이다.

We pride ourselves to be examples of integrity and honesty in every aspect. You would never see an iota of mistrust or misconduct in the entire process. We are made from a different fabric and are proud to be what we are today! Integrity has made us one of the most valued companies in steelmaking.

## "

"Quality is not just defined by the process; it is defined by the values of a company! It's the values that a company follows that make it different from others." Team Polaad

"The ultimate test of man's conscience may be his willingness to sacrifice something today for future generations whose words of thanks will not be heard." Gaylord Nelson, American politician and environmentalist

## **BE RESPONSIBLE. BE SUSTAINABLE.**

Conserving our environment is one of the most important duties of every individual on this planet. Nature provides us with all the necessary resources and it's our duty to preserve and conserve it. Polaad follows and staunchly follows this principle. We not only offer novel solutions and innovations in our products but also introduce efficiency and optimization through our recycling initiatives.

Steel is a material that can be recycled infinitely without quality loss. Hence, we are conserving the environment by default. But we are a step ahead of just recycling. We believe in cutting greed rather than cutting the greens! We follow sustainable practices and organize a plethora of tree plantation drives over the year. We have also planted trees around the vicinity of our factory because we just don't think green, we live green!

We also have a raw material segregation process, conducted through advanced machinery available in the factory. This machine is responsible for segregating non-ferrous materials and impurities, eventually decreasing the carbon footprint. Scrap-based steel technologies also play a crucial role in reducing greenhouse gas emissions. We, at Polaad, strive harder for offering a brighter tomorrow for our future generations!

ELECTROTHERM

## **THE PROCESS**

Our products are our reflection. Every product in the making goes through a stringent quality check. We have state-of-the-art machinery for the seamless transition of the products from one process to another. All the processes are minutely observed by the workforce and they help in making the product as great as possible.

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# **THE PRODUCTS** CONSTRUCTION TMT/QST BARS

Corrosion-resistant, earthquake resistant, ductile, and superior welding strength!

We produce FE500, FE500D, FE550D, CRS grades from 6mm to 32mm of wide range. We have "D" graded steel bars. TMR/QST bars having this grade mean more flexibility and strength. Our bars assure phenomenal quality in all types of building construction.

#### CHEMICAL COMPOSITION - IS 1786-2008

		0.2000						
Elements	Ind	ian Standard	( 1786 : 200	)8)	Polaad Specifications			
Elements	Fe 500	Fe 500D	Fe 550	Fe 550D	500	500D	550	550D
Carbon, Max	0.30	0.25	0.30	0.25	0.25	0.25	0.25	0.25
Sulfur, Max	0.055	0.040	0.055	0.040	0.050	0.040	0.050	0.040
Phosphorus, Max	0.055	0.040	0.050	0.040	0.050	0.040	0.050	0.040
S + P, Max	0.105	0.075	0.100	0.075	0.095	0.075	0.095	0.075

#### **MECHANICAL PROPERTIES- NES- IS 1786:2008**

Properties	India	n Standard	( 1786 : 2	008)	Polaad Specifications			
Toperaes	Fe 500	Fe 500D	Fe 550	Fe 550D	500	500D	550	550D
Yield Strength, Min ( N/Mrn2)	500	500	550	550	530	530	580	580
Ultimate Tensile Strength, Min (N/mm?)	545	565	585	600	585	585	610	610
Elongation (A,), Min (%)	12	16	10	14.5	16-20	18-22	16-20	18-22
UTS/YS Ratio	1.08	1.10	1.06	1.08	1.10	1.15	1.10	1.15

#### Weight Tolerance

Size (Dia) of bar	Size (Dia) of bar		n Wt. (Kg/i per IS1786		Polaad Wt. (H		Length of Bar (m)	Weight of Pola	of 1 Bar ad (Kg)	No. Of Bars In 1		Bundle In Kg)	No. Of Bars In 1	No. Of Bundle In 1
(mm)	(mm)	Lower	Standard	Higher	Lower	Higher		Lower	Higher	Bundle	Lower	Higher	MT	МТ
6	28.30	0.206	0.222	0.238	0.211	0.233	12	2.531	2.797	30	75.924	83.916	375	13
8	50.30	0.367	0.395	0.423	0.375	0.415	12	4.503	4.977	17	76.551	84.609	211	12
10	78.60	0.574	0.617	0.660	0.586	0.648	12	7.034	7.774	11	77.392	85.516	135	12
12	113.10	0.844	0.888	0.932	0.861	0.915	12	10.336	10.976	8	82.691	87.805	94	12
14	153.95	1.148	1.209	1.269	1.175	1.209	12	14.1	14.5	6	84.6	87	69	11.5
16	201.20	1.1501	1.1580	1.659	1.533	1.627	12	18.391	19.529	4	73.565	78.115	53	13
18	254.50	1.940	1.998	2.058	1.950	1.998	12	23.4	23.976	3	70.2	72	41	14
20	314.30	2.396	2.470	2.544	2.421	2.519	12	29.047	30.233	3	87.142	90.698	34	11
25	491.10	3.735	3.850	3.966	3.733	3.927	12	45.276	47.124	2	90.552	94.248	22	11
28	615.80	4.685	4.830	4.975	4.733	4.927	12	56.801	59.119	1	56.801	59.119	17	17
32	804.60	6.121	6.310	6.499	6.184	6.436	12	740	77.234	1	74.206	77.234	13	13

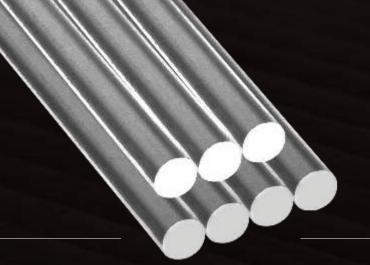
## **OUR WORKFORCE**

Our workforce is a shining example of this quote by Simon Senek. Our employees don't just work for the sake of money. We share the same passion! We are all determined and dedicated to producing the finest steel products in the country! The passion for producing great steel products is what drives us towards success! We have a family of skilled and experienced professionals having numerous years of experience in the steelmaking sector.

We don't just recruit experienced professionals but also inculcate new talent in our family who wish to make a difference in the steel industry. Sharing the same passion is enough to be a part of the everprospering Polaad family! Every process is strenuously examined by our professionals and the result: Excellent products for our customers and associates! Our workforce serves as an inspiration for us and we learn a lot of things from them. We are truly grateful for having a wonderful workforce with the sole aim of producing exceptional steel products.

"If you hire people just because they can do a job, they'll work for your money. But if you hire people who believe what you believe, they'll work for you with blood and sweat and tears." Simon Sinek, author and motivational speaker





## **DOWEL BARS**

## COIL FORM Steel Bars

Tight tolerance, Increases efficiency, and available in customized sizes for minimal wastage!

Our dowel bars are of exceptional quality and help in decreasing deflection and stresses. Our bars are passed through stringent quality check mechanisms and hence, are tough and robust.

Expansive range from 6mm to 12mm, nominal wastage at sites, no overlapping required, and time-saving!

Widely used in building construction for optimum strength, these coil form steel bars are made from quality materials thus ensure durability and strength.

### **Chemical Properties**

Elements (%)	ls 1	786-2008 Speci	ified	Polaad Standard			
	FE 500	FE 500D	FE 550D	FE 500	FE 500D	FE 550D	
Carbon	0.025	0.25	0.25	0.25	0.24	0.24	
Sulfur	0.055	0.040	0.040	0.055	0.040	0.040	
Phosphorus	0.055	0.040	0.040	0.055	0.040	0.040	
S+	0.105	0.075	0.075	0.105	0.075	0.075	

## **Chemical Properties**

Elements	IS 2062-2011	POLAAD Standard
Eleilleilts	E-250	E-250
Carbon	0.23	0.23
Magnize	1.50	0.80
Sulfur	0.45	0.45
Phosphorus	0.45	0.45
Silicon	0.40	0.40

#### **Mechanical Properties**

Elemente (%)	IS 2062-2011	POLAAD Standard
Elements (%)	E-250	E-250
Carbon	0.23	0.23
Magnize	1.50	0.80
Sulfur	0.45	0.45
Phosphorus	0.45	0.45
Silicon	0.40	0.40

## BIS Tolerance & Saving with POLAAD TMT

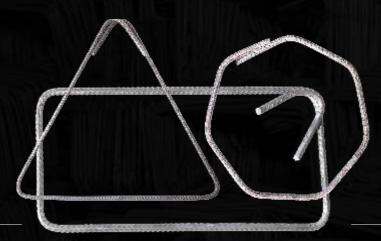
	and the second						
Size		Sectional Weight				Neight Per Metr	e
0120	Lower Weight	Standard Weight	Higher Weight	Tolerance	Size	(kg	/m)
(mm)	(kg/m)	(kg/m)	(kg/m)	(kg/m)	(mm)	Lower	Higher
8	6.125	6.347	6.504	+3	32	6.161	6.48

#### **Mechanical Properties**

Elements (%)	ls 17	86-2008 Spe	cified	Polaad Standard		
	FE 500	FE 500D	FE 550D	FE 500	FE 500D	FE 550D
0.2 Percent proof stress/ yield stress, Min, N/mm <sup>2</sup>	500	500	550	520	520	580
Ultimate Tensile Strength, Min, N/mm <sup>2</sup>	545	565	600	585	585	610
Elongation, Min, (%)	12	0.16	0.14	16-20	18-20	16-22

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# CUT AND BEND MATERIAL

## WIRE ROD

Available in all sizes, Customizable, Highly resistant, and strong material!

The practice of cutting and bending steel bars can be a tedious affair at construction sites. Recognizing the need for customized solutions, Polaad has ready to use cut and bend materials at required angles to meet the project requirements.

Available in all sizes Made as per given designs, Highly resistant, and strong material!

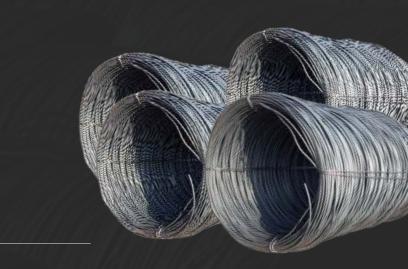
#### **Chemical Properties**

Elements (%)	ls 1	786-2008 Speci	ified	Polaad Standard			
	FE 500	FE 500D	FE 550D	FE 500	FE 500D	FE 550D	
Carbon	0.025	0.25	0.25	0.25	0.24	0.24	
Sulfur	0.055	0.040	0.040	0.055	0.040	0.040	
Phosphorus	0.055	0.040	0.040	0.055	0.040	0.040	
S+	0.105	0.075	0.075	0.105	0.075	0.075	

#### **Mechanical Properties**

Elements (%)	ls 17	86-2008 Spe	cified	Polaad Standard		
	FE 500	FE 500D	FE 550D	FE 500	FE 500D	FE 550D
0.2 Percent proof stress/ yield stress, Min, N/mm <sup>2</sup>	500	500	550	520	520	580
Ultimate Tensile Strength, Min, N/mm <sup>2</sup>	545	565	600	585	585	610
Elongation, Min, (%)	12	0.16	0.14	16-20	18-20	16-22

As per customer Requirement We can make and delivered All sizes, Design and Shape







## **BINDING WIRE**

Durable fastening feature and made from robust materials!

Flexible and available in different diameters according to the specifications by the customers!

#### **Chemical Properties**

Elements (%)	Polaad Standard
Carbon	0.15%(Max)
Sulfur	0.050%
Phosphorus	0.50% - 0.60%(Max)
S+	0.050(Max)

#### **Mechanical Properties**

Elements (%)	Polaad Standard
Material	Mild Steel
Packaging Type	Box
Packaging Size	
Head Shape	Round
Surface Treatment	Polished

#### **Product Description**

Backed by a team of highly experienced professionals, we are involved in manufacturing and supplying a wide range of Mild Steel Nail is manufactured using quality approved raw material and cutting-edged technologies in complete compliance with set market norms. Furthermore, this nail is available in various sizes and dimensions in order to meet the variegated requirement of our clients. The offered nail is highly demanded in the market due to its several features.

#### **Chemical Properties**

Elements (%)	
Carbon	
Sulfur	
Phosphorus	
S+	

#### **Quality Specification**

The Binding wire should be 16 or 18 gauge annealed wire conforming to IS 280. It shall be free from rust, oil, paint, grease, loos mill scale or any type.

It shall be free from corrosion and should be abrasion Highly stringent. Its tensile strength is half hard. i.e. The Tensile Strength : 250-430 N/mm2 and Elongation : 40% @ measuring length of 5.0 X dia.



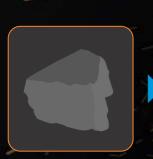
#### **Polaad Standard**

0.15%(Max) 0.050% 0.50% - 0.60%(Max) 0.050(Max)



## FUTURE

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.



**Raw Material** 



5Kg Furnace QC of Raw Material



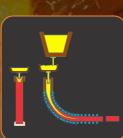
Induction Furnace



Spectro Checking



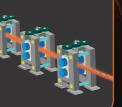
Purging Process



Continuous **Casting Process** 



Induction Heater

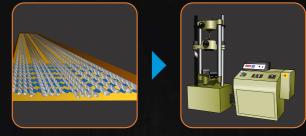


**Rolling Process** 

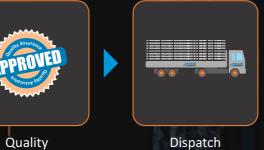


Quenching

Process



Self Tempering



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Cutting & Bending (According to Order)



Assurance



**Quality Control Online Inspection** 

## **MANUFACTURE PROCESS**