

BUILD IT RIGHT

Superior Quality TMT Bars

CRS Bars



Electrotherm (India) Ltd. is a well-diversified conglomerate having a strong presence in the field of engineering and projects serving steel, foundry & heat treatment industries since 1983. Over the years, it has forayed into manufacturing of Induction Melting Furnaces, Continuous Casting Machines, Steel, Transformers and much more. It launched TMT bars in 2006 and in a short span of 13 years, ET TMT bars have become the most preferred and no. 1 brand of TMT bars in Gujarat. Today, Electrotherm (India) Ltd. is Western India's first fully integrated manufacturing facility of epoxy coated TMT bars with unique offerings like ET TMT Epoxy Protect and ET TMT Cut & Bend which are ready-to-use TMT bars.

WHY IS ET TMT SUPERIOR QUALITY BARS THE RIGHT CHOICE TO BUILD IT RIGHT?

Fe 500 and Fe 500 D have lower percentages of sulphur and phosphorus, which are harmful to steels used in construction. They are crafted under strictly regulated manufacturing process which makes them easily bendable. The Fe 500 D TMT bars also have the capacity to absorb sudden loads, which make them an ideal solution for various natural disasters like earthquakes, tsunamis, and cyclones.

MECHANICAL PROPERTIES							
Grade	Fe 500		Fe 500 D		Fe 550 D		
	IS 1786:2008	ET TMT 500	IS 1786:2008	ET TMT 500 D	IS 1786:2008	ET TMT 550 D	
Ultimate Tensile Strength	500	520	500	530	550	570	
Tensile Stress	545	580	565	600	600	630	
(UTS/YS) Ratio	1.08	1.12	1.10	1.12	1.08	1.10	
Elongation (%)	12.0	16.0	16.0	18.0	14.5	16.0	
Total Elongation (%)			5.0	7.0	5.0	6.0	

CHEMICAL COMPOSITION

Grade	Fe 500		Fe 500 D		Fe 550 D	
	IS 1786:2008	ET TMT 500	IS 1786:2008	ET TMT 500 D	IS 1786:2008	ET TMT 550 D
C% (max)	0.30	0.25	0.25	0.23	0.25	0.24
S% (max)	0.055	0.050	0.040	0.040	0.040	0.040
P% (max)	0.055	0.055	0.040	0.040	0.040	0.040
S + P (%)	0.105	0.105	0.075	0.075	0.075	0.075
CE%	0.42	0.42	0.42	0.42	0.42	0.40



SUPERIOR QUALITY BARS

WHY IS ET TMT CRS BARS THE RIGHT CHOICE TO 'BUILD IT RIGHT'?

ET TMT CRS bars are an example of 'Innovation meets product excellence'. Striking a fine balance between the life of the structure and its cost, these corrosion resistant bars help in reducing the rate of corrosion from the time of construction and thus enhance the life span of the structure.

The Process:

Captively produced billets ensure that high quality input is available for production of CRS bars. Even these captive billets are produced using high quality sponge iron produced in-house. The steel is made to an accurate chemical composition. Spectrometer testing ensures that the chemistry is precisely controlled in every heat of billets produced. Corrosion resistance elements like copper, phosphorus, and chromium are added in the correct proportion to make the steel resistant to corrosion. The quenching technology used after rolling ensures that there is a presence of self-tempered layer over martensitic layer. This ensures high strength with high ductility. The distribution of corrosion resistance elements is homogeneous from the core to the surface. The high strength enables the steel to resist applied forces. The high ductility ensures the steel can undergo permanent changes in shape without rupturing.

State-of-the-art Manufacturing Facility:

The state-of-the-art plant located at Kutch, Gujarat is a fully integrated steel plant comprising of Sponge Iron Kilns, Induction Melting Furnaces, Ladle Refining Furnaces, 6/11 Continuous Casting Machines, Fully Automatic 5.0 LTPA Continuous Rolling Mill with variable AC drives and Advanced 3 stage Thermo-Mechanical Treatment Facility. As our steel plant is located in Gujarat, timely delivery is assured.



CRS BARS

Product Advantages

- Made from high quality BIS certified billets produced in-house
 - Longer life due to superior pitting corrosion resistance
 - Can be bent and re-bent around very small mandrels
 - High yield strength coupled with ductility and bendability

• Stringent quality control through NABL accredited in-house physical and chemical laboratories

- Suitable for application in seismic zones
- Single largest production capacity of TMT bars in Gujarat 5.0 LTPA

ET TMT CRS BARS

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PHYSICAL PROPERTIES							
Grade	CRS 50	0	CRS 500 D				
Graue	As Per IS 1786:2008	ET CRS 500	As Per IS 1786:2008	ET CRS 500 D			
Ultimate Tensile Strength	500.00	530.00	500.00	520.00			
Tensile Stress	545.00	580.00	560.00	590.00			
(UTS/YS) Ratio	1.08	1.10	1.10	1.12			
Elongation (%)	12.00	15.00	16.00	17.00			
Total Elongation (%)			5.00	5.00			
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CHEMICAL COMPOSITION							
Grade	CRS 50	0	<u>CRS 500</u> D				
oraue	As Per IS 1786:2008	ET CRS 500	As Per IS 1786:2008	ET CRS 500 D			
C% (max)	0.15	0.15	0.15	0.15			
S% (max)	0.055	0.050	0.040	0.040			
P% (max)	0.120	0.100	0.080	0.080			
Cu%		0.22-0.45		0.15-0.25			
Cr%	-	0.22-0.45		0.35-0.45			
CRE value (Cu+Cr+P) % (min)	0.40	0.50	0.40	0.50			



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