



TMT **STEEL** BARS EXCLUSIVELY FROM 100% CONTINUOUS  
CASTING BILLETS

Trish<sup>TM</sup>Akti

**TMT BARS**

*Trishakti ki Takat, Bharosa, Bandhan aur Bachat*



**AMIT METALIKS LIMITED** : A pioneer group with thumping success in Metallurgical Fields, for more than twenty years, now ventured in Manufacturing of Thermomechanically Treated (TMT) Rebars. **Amit Group has a successful track record in Mining, Mineral Beneficiation, Sponge Iron (DRI) Production and steel Billets. The vast experience and dedication, has promoted Amit Group of Companies to Manufacture TMT Bar, incorporating Thermex Technology for HSE, GmbH Germany.** The integrated Steel Plants producing TMT Bar of size 8mm to 32mm, as per Indian Standard IS : 1 786-2008 and International Standard.

Innovative Technology blended with dedication and sincerity, Quality Consciousness at the background, Trishakti TMT Bar, ready for infrastructural development of our country and to serve the People in a better, safer way with uncompromising Quality.

## Why you will select **Trishakti TMT BAR**



### **Cost Saving**

State-of-the-art technology along with superior tensile Properties saves steel significantly.



### **High Weldability**

Low Carbon equivalent (CE) and truly refined steel retains joining strength when Trishakti Bars are welded.



### **Fire Resistance**

No loss of strength even at a high temperature of 600°C leading to better security of concrete structure.



### **Bend and Rebend Properties**

Extra-ordinarily high ductility even at highest level of strength and purely refined steel guarantees best Bending and Rebending properties.



### **Corrosion resistance**

Appropriate Chemistry, Micro-structure ensures high level of resistance in corrosive atmosphere. A true friend Cement to prevent Corrosion.



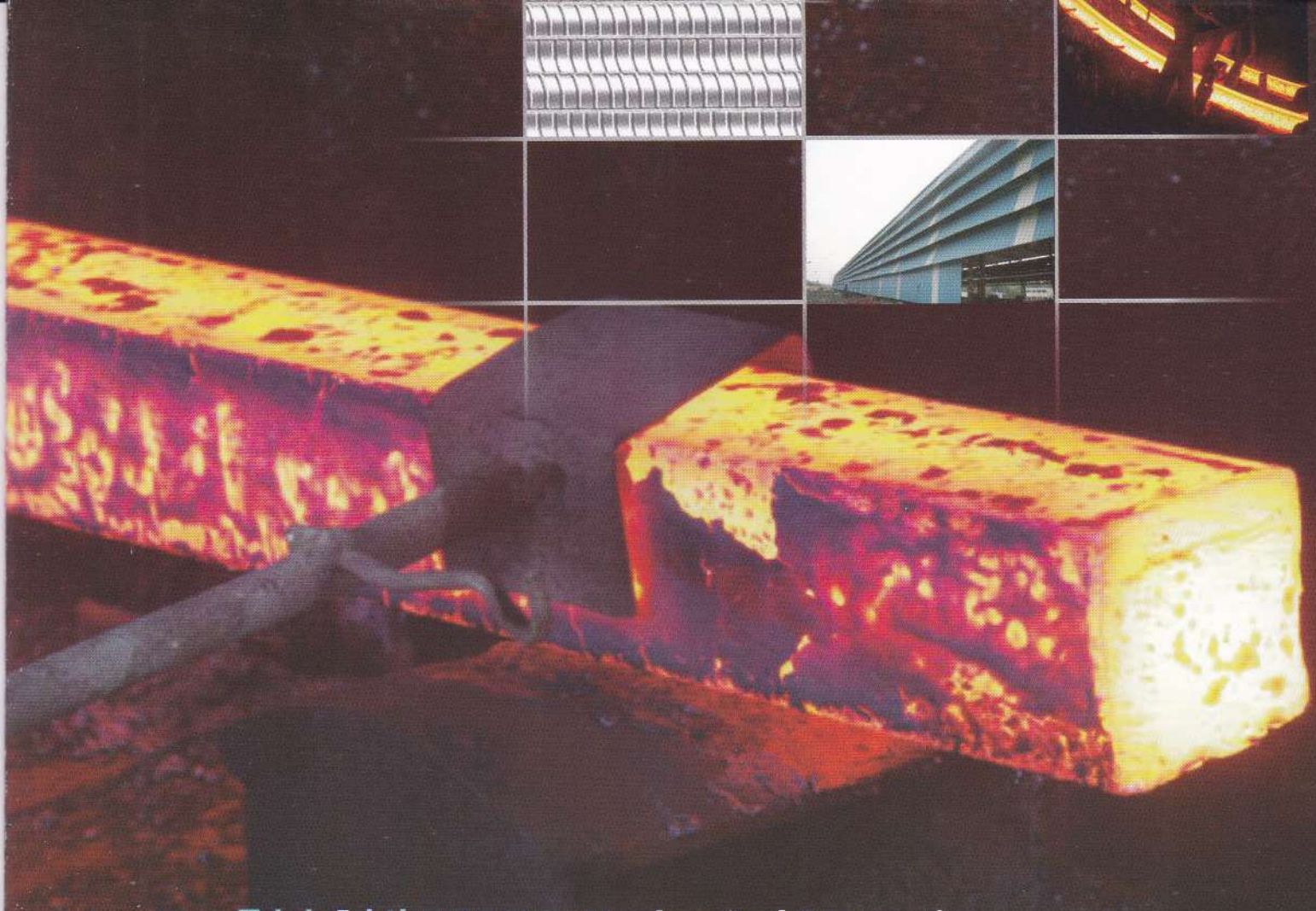
### **Superior Bond Strength**

Delicate Rib Design and Geometry gives ultra-high bond strength of Bars with Cement

## **Earthquake Resistance Property**

The alloy chemistry and process parameters are controlled to achieved a high stress ratio (UTS/YS) at high level of ductility enabling the steel bar to absorb higher in-elastic strain energy during cyclic loading encountered in earthquake condition.





## Thermex Trishakti TMT Bar Mechanical Properties

TESTS	IS STANDARD - 1786			Trishakti TMT REBAR
	415	500	550	
0.2% Proof Test	415N/mm <sup>2</sup>	500N/mm <sup>2</sup>	550N/mm <sup>2</sup>	450-580N/mm <sup>2</sup>
Tensile Strength	485N/mm <sup>2</sup>	545N/mm <sup>2</sup>	585N/mm <sup>2</sup>	500-670N/mm <sup>2</sup>
% Elongation	14.50%	12.00%	8.00%	18 - 30%
Bend		3D-4D		1D
Rebend		5D-7D		4D

## Chemical Composition of TMT Bar

% PERCENTAGE	IS 1786	Trishakti
Carbon	0.30 (Max.)	0.22 (Max.)
Sulphur	0.06 (Max.)	0.05 (Max.)
Phosphorous	0.05 (Max.)	0.05 (Max.)

## Quality Control

TRISHAKTI TMT Rebars are produced through a very rigorous quality control process during its manufacturing process. The state-of-the-art laboratory manned by highly qualified QCA personnel always keep constant vigil during the entire production process: starting from raw material to finished TMT Bar. There is no compromise with quality in every aspect whether raw material, process planning, in-process inspection & final testing.



Universal Testing Machine



Thermex Control Unit



TrishAkti TMT Bar of Amit Metaliks Ltd. is manufactured as per Bureau of Indian Standard specification IS : 1786-2008

### Availability of TrishAkti TMT Steel Bar - 8mm to 32 mm



Size (mm)	Specified wt (Kg/m)	Allowable Tolerance (%)	Variation Limit for TrishAkti TMT (%)
8	0.395	±7	±4
10	0.617	±7	±3
12	0.888	±5	±3
16	1.578	±5	±3
20	2.470	±3	±2
25	3.850	±3	±2
28	4.830	±3	±2
32	6.310	±3	±2

### Comparative Properties of TrishAkti TMT Bar (Fe 415D/Fe 500D)

PROPERTIES	IS 1786 Fe 415D	TrishAkti Fe 415D	IS 1786 Fe 500D	TrishAkti Fe 500D
<b>PHYSICAL</b>				
0.2% Proof Stress : N/mm <sup>2</sup> (Min)	415	450	500	540
Tensile Strength : N/mm <sup>2</sup> (Min)	500	560	565	620
Elongation at Max. Force (%)	5	6	5	6
Total Elongation (%)	18	24	16	22
Bend	2D-3D	2D	3D-4D	2D-3D
Rebend	4D-6D	3D-5D	4D-6D	3D-5D
<b>CHEMICAL</b>				
Carbon (%) Max.	0.25	0.20	0.25	0.22
Sulphur (%) Max.	0.045	0.040	0.040	0.035
Phosphorous (%) Max.	0.045	0.040	0.040	0.035
Sulphur & Phosphorous (%) Max.	0.085	0.080	0.075	0.070



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