



**AMMAN-TRY**  
TMT BARS

SYMBOL OF STRENGTH



IS : 2830 IS : 1786



**500 guar D**

BUILDING'S PROTECTOR

## BENEFITS OF AMMAN-TRY

# 500 guar D

### SULPHUR & PHOPHORUS (S & P)

Expert believes that these two chemical components (S & P) will easily affect the steel bars by reducing their elongation and bendability, by which the building's life becomes a question.

To overcome this, 500 D was introduced by BIS.

Compared to the BIS standards, our AMMAN-TRY "500 guarD" are made of even less S&P components for getting the following advantages.

### CHEMICAL PROPERTIES

PROPERTIES (%)	IS:1786:2008 Fe 500 "D"	AMMAN-TRY 500 "guarD"
Carbon (C)	0.25(Max.)	0.25(Max.)
Sulphur (S)	0.040(Max.)	0.040(Max.)
Phosphorus (P)	0.040(Max.)	0.040(Max.)
S+P	0.075(Max.)	0.075(Max.)
Carbon Equivalent	0.50(Max.)	0.42(Max.)

### BENDABILITY

Our "500 guarD" bars are made of billet with low percentage Sulphur & Phosphorus, which posses excellent bendability and requires low power to bending the bars.

### EARTHQUAKE RESISTANCE

These bars are provided with balanced stiffness, Strength and ductility to resist earthquakes. Our "500 guarD" provide very high strengths with higher elongation values and better ductility compared to other steel bars.

### MECHANICAL PROPERTIES

PROPERTIES	IS:1786:2008 Fe 500 "D"	AMMAN-TRY 500 "guarD"
Yield Strength (N/mm <sup>2</sup> )	500(Min.)	520 - 550
Tensile Strength (N/mm <sup>2</sup> )	565(Min.)	620 - 690
Elongation (%)	16(Min.)	18 (Min.)
Total Elongation (%)	5(Min.)	8 (Min.)
Bend Test ( Mandrel size) (≤20 mm)	3D	3D

## SECTION WEIGHT

SECTION	Min. Wt. (Kg/Mtr.)	Normal Wt. (Kg/Mtr.)	Max. Wt. (Kg/Mtr.)
6 mm	0.206	0.222	0.238
8 mm	0.367	0.395	0.423
10 mm	0.574	0.617	0.660
12 mm	0.843	0.888	0.932
16 mm	1.500	1.579	1.658
20 mm	2.393	2.467	2.541
25 mm	3.739	3.855	3.971



## OUR LABORATORIES

AMMAN-TRY is conducting various experiments as per BIS Standards to provide high quality and strength.

## CHEMICAL LABORATORY

- Spectrometer – Used to measure Billet's chemical properties accurately.
- Chemical Laboratory - Used to cross check the Billet's chemical properties result.

## PHYSICAL LABORATORY

- Universal Testing Machines - Used to measure the strength of the Bars (Grade).
- Hardness Tester - Used to measure the hardness of the Bars.
- Bending & Re-Bend Testing Machines – For testing the flexibility of the bars.

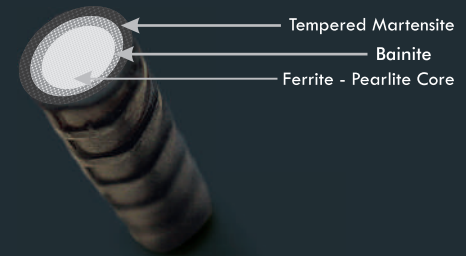
## METALLURGICAL LABORATORY

- Metallurgical Microscope with accessories - Used to test the configuration of Bars. This results in consistent strength for the Bars.

## OPTICAL PYROMETER

- It is used to measure the temperature at which the Bar is produced. Which increases the flexibility of the Bars.

## Micro Structure of "500 guarD"



## PIONEER OF TMT BARS

AMMAN-TRY has been contributing to the steel production of our Country for the past 40 years. And Introduced different types of Bars like Twisted Bars, TMT Bars, CRS Bars and Rings.

Considering the increasing growth of building sector and safe guarding the Buildings for generations to come, AMMAN -TRY Group is happy and proud to launch "500 guarD".

Based on the advice from leading Engineers in the country and the expectations of the customers, this "500 guarD" bars are produced with high quality and strength.

## QUALITY GUARANTEED AT NATIONAL AND INTERNATIONAL

AMMAN-TRY / TMT Bars are manufactured to the International standards and Indian standards IS: 1786, IS: 2830, IS: 14650 and IS: 456 standards. It is also recognized by CEB as equivalent to International standards.

## EQUAL TO WORLD STANDARDS

AMMAN-TRY is a pioneer in the implementation of Thermo Mechanical Treatment Method by Tempcore Belgium Technology.



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