

The true identity of construction's

Strength & longevity









Three layers
depicting the
international
quality





Fe stands for Iron out of which the TMT bars are made.

500 implies the minimum yield stress in MPa.

implies ductility which means that the steel bars have a higher percentage of elongation.

Fe 500D with lower quantities of carbon, sulphur and phosphorous, helps in preserving the steel and resisting earthquake shocks and fatigue. Thus making it as the best variant possible made to build futuristic structures.

Product advantages

Enhanced strength & durability



World class & leading – edge technology





High thermal & fatigue resistance







Earthquake resistant

Tempcore Technology the most effective processes in the production of TMT bars developed by the Centre de Rechaerche Metallurgiques (CRM) Belgium. 1

Passing the steel wires through a rolling mill stand

4

2

Rolled steel wires are again passed through the **Tempcore water** cooling system 3

Through the water cooling system, the water pressure is optimised.

Manufacturing process

Sudden quenching and drastic change in temperature toughen the outer layer of the steel bar

5

In order to equalise the temperature difference between the soft inner core and the tough exterior the atmospheric cooling process is done



Tuning the bars into ferritepearlite structure by slowly cooling down and then compressed to expand and strengthen them

7

Mechanical Properties

BIS Standard vs SSI TMT Fe 500 D

Properties	IS: 1786	SSI TMT
Yield Stress – N/mm2 (Min.)	500	530
Tensile Strength - N/mm2 (Min.)	565	600
Elongation % (Min.)	16	18
Total Elongation % (Min.)	5	7

Chemical Specifications:

BIS Standard vs SSI TMT Fe 500 D

Constituent (%)	IS: 1786	SSI TMT
Carbon (Max.)	0.25	0.17-0.23
Sulphur (Max.)	0.040	0.040
Phosphours (Max.)	0.040	0.040
S & P (Max.)	0.075	0.075

NOTE: As per BIS, above mentioned mandrels are to be used for bend and rebend the bars. If not use, It will affect the Quality of the Bars.

Clients



















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