

INTEGRATED
STEEL PLANT

IS 1786 : 2008



CM/L 5710032112
ISO 9001:2015



SSD

SUPER SHAKTI®

Fe 550⁺ SD Advanced Y Ribbed TMT



SUPERIOR **STRENGTH** • SUPERIOR **DUCTILITY**
• SUPERIOR **BONDING** WITH CONCRETE



WORLD'S LATEST BONDING BENCHMARK - ADVANCED Y RIBS NOW IN INDIA!

Super Shakti Fe 550⁺ SD Advanced Y Transverse Ribs

Advantages over other TMT rib patterns:

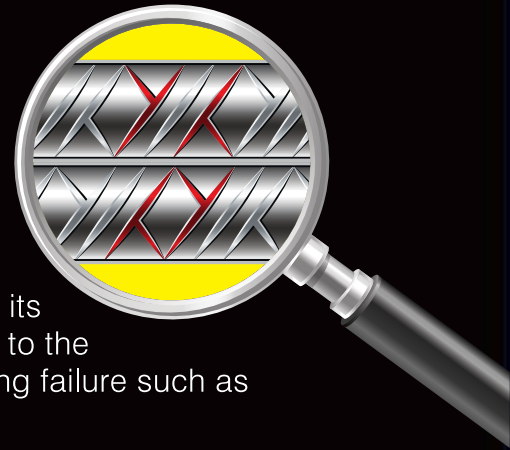
- Optimum rib design in 'Advanced Y Transverse Rib' pattern enhance superior bonding by increasing the Area of Ribs (AR) value of the rib to maximum.
- In 'Advanced Y Transverse Rib' increases the surface area, with its unique design of the rib neutralizes the effect of stress amplitude to the maximum. That can be repeated for loading cycles without causing failure such as buckling or cracking hence makes it earthquake resistant.
- 'Advanced Y Transverse Rib' pattern characterize the increase compressive and tensile properties in the concrete.

Advanced Y Transverse Rib Pattern:

1. Better elongation: Advantageous in earthquake-prone zones.
2. Better Ultimate Tensile Strength (UTS) and 0.2% Proof Stress.
3. Better mechanical properties compared to other available TMT bars.
4. 'Advanced Y Transverse Rib' incorporates unique combination of physical and chemical properties.

The Bonding Benchmark:

Steel and concrete conforms to a single unit in reinforcement structure. With SUPER SHAKTI Fe 550⁺ SD TMT bar's unique Advanced Y rib pattern, the concrete grips the bar very strongly, forming the strongest bond. The reinforcement is further strengthened by its greater rib depth and closer rib spacing at different angles. Besides, CNC notch cutting ensures uniform rib pattern, thus ensuring uniform bonding throughout the structure. The uniformity and critically designed ribs also ensure that its fatigue strength and ductility are superior to ordinary TMT. Moreover, our state of art integrated plant ensures consistent and superior TMT properties. Even the alloys and pig iron used in TMT making are produced under one roof. This entire in-house set up also allows for meticulous quality testing at every step, ensuring exceptional quality standards.



ADVANCED INTEGRATION UNDER ONE ROOF



In-plant Railway Siding



Captive Power Plant



Concast Billet Plant



Electric Furnaces



DRI Plant



Pig Iron Plant



Ferro Plant



Billets



Tempcore Process Line



CNC Sparkonix Rib



Spectrometer



Automatic Cooling Bed



Stacking TMT

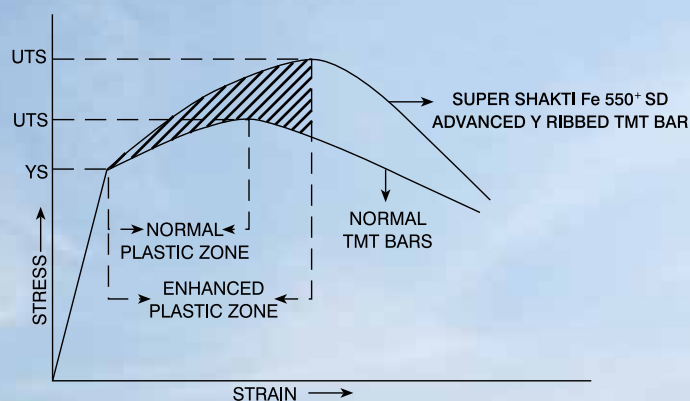


Dispatch

ADVANCED 1.1 MTPA INTEGRATED PLANT

A Few Features:

- Own railway siding for smooth inflow of raw material and outflow of finished goods.
- Production of alloys and pig iron required for TMT manufacturing, thus greater control on quality.
- Captive Power Plant for uninterrupted production.
- Quality lab with multiple UTM and Spectrometers.
- Block Mill with tungsten carbide rolls for perfect sectional weight.
- Rotary Drums for automated high precision rolling process.
- CNC Notch Cutting Machine for precision controlled rib structure.
- CNC Grinding Machine for perfect chemical composition.



World's most advanced TMT technology:
TEMPCORE (BELGIUM)

4th Generation Automation from ITALY

TYPICAL STRESS - STRAIN CURVE
ORDINARY TMT vs. SUPER SHAKTI Fe 550⁺ SD ADVANCED Y RIBBED TMT BAR



Y RIBBED TECHNOLOGY FOR GENERATION Y HOMES

Not every brand has the power to innovate and create standards for others to follow. **SUPER SHAKTI Fe 550⁺ SD Advanced Y Ribbed TMT Bars**, inspired by European construction patterns are scientifically designed to provide maximum bonding of concrete with steel bar for long-lasting, new generation homes.

General TMT Bars



Conventional machines for engraving ribs result in non-uniform pattern, has low fatigue life and reduced bond strength with concrete.

Super Shakti Fe 550⁺SD Advanced Y Ribbed TMT Bar



PLC controlled transverse Y-Rib cutting method ensures precise and uniform Advanced Y Ribbed pattern which provides excellent and uniform bonding with concrete for better RCC.

Excellent Specifications of Super Shakti Fe 550⁺ SD TMT Bar

CHEMICAL COMPOSITION (IS 1786 : 2008)				
Element	Indian Standard (IS:1786)			Super Shakti Fe 550 ⁺ SD
	Fe 500	Fe 500D	Fe 550D	
Carbon Max	0.30	0.25	0.25	0.25
Sulphur Max	0.055	0.040	0.040	0.040
Phosphorus Max	0.055	0.040	0.040	0.040
S + P Max	0.105	0.075	0.075	0.075

MECHANICAL PROPERTIES (IS 1786 : 2008)				
Properties	Indian Standard			Super Shakti Fe 550 ⁺ SD
	Fe 500	Fe 500D	Fe 550D	
Yield Strength (N/mm ²)	500	500	550	550
UTS (N/mm ²)	545	565	600	620
Elongation (%)	12	16	14.5	18

BIS TOLERANCE WITH SUPER SHAKTI Fe 550 ⁺ SD TMT			
Nominal Size* (mm)	Nominal Section Wt. (Kg/M)	Section Wt. Range (Kg/M)	Super Shakti Section Wt. as per Indian Standard
8	0.395	(0.367 - 0.423)	0.395
10	0.617	(0.574 - 0.660)	0.617
12	0.888	(0.844 - 0.932)	0.888
16	1.580	(1.501 - 1.659)	1.580
20	2.469	(2.396 - 2.544)	2.469
25	3.858	(3.734 - 3.966)	3.858
28	4.839	(4.685 - 4.975)	4.839
32	6.320	(6.121 - 6.499)	6.320

COST SAVING CHART

Work	Size	Concrete	TMT (Kg)	Super Shakti Needed (Kg)	Savings/ Quintal (Kg)	Savings (%)
Roof	100 sq.ft.	1:05.5	52	42	10	19
	(4" thick)	-	-	-	(per 100 sq.ft.)	-
Beam	300 X 700	M-25	104	86	18	17
	-	M-30	137	115	22	16
Column	300 X 900	M-25	69	58	11	16
	230 X 600	M-25	58	44	14	24





We are committed to providing consistent product quality, forging a stronger future and building trust that grows stronger with time. No wonder, Super Shakti Fe 550+ SD Advanced Y Ribbed TMT Bars are the expert's choice for their exceptional advantages.

SAY YES TO STRENGTH
Maximum bonding of cement mixture with the steel bar results in additional strength

SAY YES TO POWER
Endowed with anti-corrosive properties for sustainable construction

SAY YES TO BONDING
Maximum bonding with concrete resulting in superior strength

SAY YES TO DUCTILITY
Higher ductility facilitates superior bending and higher levels of safety

SAY YES TO SAFETY
Provides the best resistance to structures during earthquakes

SAY YES TO DESIGN
Superior bonding technology, proven across Europe, results in superior tolerance distribution

SAY YES TO PROTECTION
Fire retardant & prolongs the life of the structure in case of fire

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SUPERIOR BONDING



SUPERIOR DUCTILITY



SUPERIOR STRENGTH



EARTHQUAKE RESISTANT



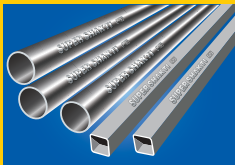
CORROSION RESISTANT

SIZES: 5.5 mm • 8 mm • 10 mm • 12 mm • 16 mm • 20 mm • 25 mm • 28 mm • 32 mm • 40 mm

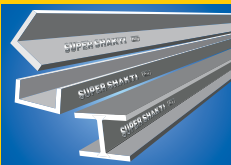
OTHER PRODUCTS



HR COIL



PIPES



STRUCTURAL STEEL



WIRE ROD



BINDING WIRE



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