METCON®
TMT BARS

METCON SD

Inner Strength
for years to come

METCON SD

കമ്പി
ഉപയോഗത്തിൽ
15% ലാഭം

To know more

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METCON SD

Metrolla Steels Ltd.

Metrolla Steels Ltd. has blazed a trail in the steel manufacturing sector of South India with it's soaring brand image, most modern technologies and a range of superior quality products. The company has always risen up to customer expectations by bringing timely innovations in its product portfolio and by upholding the highest standards of quality.

LATEST TECHNOLOGIES

By adopting the latest advances in manufacturing technologies such as PLC assisted SCADA controlled Automation from Fuji Japan, Metcon today offers better quality than other TMT steel bars in the market. METCON is today at the forefront in promising greater strength, safety and longevity to your dream homes.

In the manufacturing process of Metcon TMT Steel bars, derivatives of iron ore like Sponge Iron, Ferro Alloys etc. are used to cast high quality billets. These billets are rolled in 25 different stages to steel bars of 8mm, 10mm, 12mm, 16mm, 20mm and 25mm sizes through PLC assisted SCADA controlled fully automated plant. This automation technology is implemented with the help of FUJI Japan which relies on precision and consistent accuracy.

THREE STAGES OF MANUFACTURING

MELTING UNIT

Sponge iron and various derivatives of iron ore are melted at high temperature in the Electro Magnetic Induction Furnace and are casted to billets of superior quality.

ROLLING UNIT

In this fully automated unit (Fuji Japan Technology) top quality billets are taken through a 25-stage Rolling Process to be transformed to high quality steel bars of various sizes (8mm, 10mm, 12mm, 16mm, 20mm and 25mm).

TMT PROCESS

Metcon SD is manufactured using HSE Germany technology which includes 3 stages - Quenching, Self Tempering and Annealing.

PLC CONTROLLED SCADA AUTOMATION

Ours is the one and only steel manufacturing unit in India which uses Fuji Automation Technology. Implemented with the support of Fuji, Japan ensures accuracy and quality to the manufacturing process and to the product as well.

THERMO MECHANICAL TREATMTENT

A technology process in collaboration with HSE Germany makes METCON TMT steel much stronger with enhanced ductility. Metcon SD 550 is 30% more ductile than other brands.

QUENCHING:

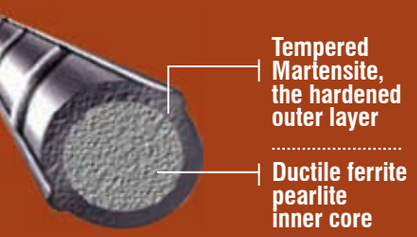
At this stage, the outer layer of the hot rolled steel rod cools down quickly and forms as Martensite.

SELF TEMPERING:

In this phase, heat from the inner layer of the steel rod is transferred to the outer layer and it becomes Tempered Martensite which is more harder.

ANNEALING:

In the third stage Annealing, the steel rod is placed on a cooling bed without contact to anything else. The inner core becomes more ductile at this stage and is referred to as Ferrite Pearlite.



SAVINGS IN COST

When a customer buys 1000 kg of METCON steel bars, he is in fact getting an extra length of 11 steel bars. It is a saving not only on the price of steel, but also a long lasting promise of quality and protection for your house.

Approximate price of 1000 kg of METCON TMT Steel – Rs.75,000 (Rs.75 per kg) Approximate price of 1000 kg of ordinary brand Steel – Rs.72,000 (Rs.72 per kg) Price difference – Rs. 3000/-	
But note the difference in length of ordinary brand steel – 131 m (49 kg)	Weight of 1 m of ordinary brand steel – 0.400 kg Weight of 1 m of Metcon TMT Steel – 0.380 kg
Loss you suffer when buying ordinary brand steel : Rs. 3,675/- (49 kg x Rs.75.00) Weight prescribed by ISI for 8mm steel : A range of 0.365kg to 0.423 kg per metre	

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ADVANTAGES OF METCON TMT

SUPER DUCTILE STEEL BARS: Quality is assured in every metre. Thanks to the superior FUJI JAPAN technology. Moreover, they are made to be 30% more ductile using HSE Germany's TMT technology.

THE REAL GREEN STEEL: Metrolla Steels Limited has acquired the Green Pro Certification from Genesis, a global eco-labelling network and is one among the rare few companies in India to have obtained it. Added to that, Metcon is a member of the Indian Green Building Council which is at the forefront in bringing Environmentally Sustainable Residential Projects to India.

RESISTS TREMORS: High ductility of Metcon TMT helps to resist earthquakes by its inherent capacity to bend and flex when subjected to shocks.

SUPERIOR BONDING POWER: The uniquely designed pattern of Metcon TMT helps to bond with concrete.

RUST RESISTANT: Owing to the specially created tough outer layer of Tempered Martensite, Metcon TMT steel is able to keep rust at bay. The oxide layer formation on this surface also helps in resisting rust.

MORE STEEL PER METRE: Since Metcon Steel has optimum weight per metre, the buyer gets more length of steel when buying Metcon.

METCON, A BUILDER-FRIENDLY TMT: Since Metcon TMT has no distortions or bends, masons or workers need not bother about hammering or straightening it.

When buying Metcon, you earn the name of being a person who always chooses the best quality.

METCON SD bars are built with world class technologies. They are manufactured in PLC assisted SCADA controlled plants which make use of modern Japanese Fuji Technology. Moreover, their quality is ensured by HSE German Technology.

METCON SD

CHEMICAL & MECHANICAL PROPERTIES OF METCON SD

	Fe 500	Fe 550
0.2 % proof stress (N/mm2)	500-545N/mm2	550-600N/mm2
ULTIMATE TENSILE STRENGTH (UTS) (N/mm2)	565-665 N/mm2	600-700 N/mm2
TS/YS ratio	≥1.10 to 1.20	≥1.08 to 1.18
% elongation	16% - 24%	14.5% - 22%
Carbon %	0.2 to 0.25	0.20 to 0.25
CE	0.33 to 0.42	0.30 to 0.61

WEIGHT IN KG PER METER

Weight / Meter	BIS lower limit	BIS upper limit	BIS nominal weight	metcon SD lower limit	Metcon SD upper limit	Metcon Nominal weight
8mm	0.365	0.423	0.395	0.365	0.385	0.375
10 mm	0.574	0.660	0.617	0.574	0.605	0.590
12 mm	0.844	0.932	0.888	0.844	0.890	0.875
16 mm	1.501	1.659	1.580	1.501	1.583	1.550
20 mm	2.396	2.544	2.470	2.396	2.527	2.450
25 mm	3.734	3.940	3.854	3.734	3.938	3.850

METCON STIRRUP RING

S. No.	Size in cm	Piece Approximate Weight in Kg	Bundle Approximate Weight in Kg	No of pieces in Bundle
1	10 x 10	0.180	9	50
2	10 x 15	0.208	10	50
3	10 x 20	0.249	12	50
4	10 x 25	0.295	14	50
5	15 x 15	0.251	12	50
6	15 x 20	0.296	14	50
7	15 x 25	0.326	8	25
8	15 x 30	0.370	9	25
9	15 x 35	0.404	10	25
10	15 x 40	0.448	11	25
11	15 x 45	0.472	12	25
12	20 x 20	0.335	17	50
13	25 x 25	0.416	21	50
14	25 x 40	0.514	13	25
15	25 x 45	0.548	14	25

If you require stirrup rings of any other dimensions, we shall provide as per your order.

HOW TO SELECT TMT STEEL FOR OUR CONSTRUCTIONS

Selecting the right TMT steel for your construction project is crucial to ensure the structural integrity and durability of the building. Here are some factors to consider when selecting TMT steel:

GRADE: TMT Steel comes in various grades, each with different strengths and properties. Choose a grade of TMT Steel that is suitable for the specific requirements of your construction project.

CORROSION RESISTANCE: Consider the environmental conditions of the construction site and select TMT Steel that has good corrosion resistance properties to prevent rusting and deterioration of the steel.

DUCTILITY: TMT Steel with higher ductility is more flexible and can withstand sudden loads and stresses better. Therefore, choose TMT Steel that has higher ductility to ensure the structural safety of the building.

MANUFACTURING PROCESS: Choose TMT Steel that is manufactured using a reputable process that involves controlled cooling. This ensures that the TMT Steel has a uniform structure and the desired properties.

BRAND: Select TMT Steel from a reputable brand that has a track record of delivering high-quality products.

PRICE: Consider the cost of the TMT Steel, but don't compromise on the quality. Choose TMT Steel that is affordable but meets the required specifications.

In summary, when selecting TMT Steel for your construction project, consider the grade, corrosion resistance, ductility, manufacturing process, brand, and price to ensure that you select the right TMT Steel that meets the required specifications for your construction project.

OUR RESPONSIBILITY TO THE SOCIETY.

Metrolla Steels Pvt. Ltd has been involved in a number of social outreach projects to enhance the quality of life of rural communities around us. These include promoting education and literacy, women empowerment programs, training for underprivileged youth, improvement of healthcare facilities and more. We also provide financial assistance and other essentials to needy students in our nearby schools. During the 2018 floods, Metrolla Steels swung into action to distribute food and clothing to the affected and displaced people.

During the Covid-19 pandemic, we also lend support to government and locals bodies by providing space for a FLTC (First Line Treatment Centre) as well as giving away financial aid.

As a corporate, we believe that we have certain obligations to society and hence are highly committed towards our social welfare initiatives.

Customer Care Cell:

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Kerala

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IS 1786
CM/L-6404256

ISO 9001:2015

ISO 14001:2015

Member:

Indian Concrete Institute

Indian Green Buildng Council

Material Recycling Association of India