



TATA
TISCON
JOY OF BUILDING

6 TATA TISCON mm REBAR

Small wonders for Construction Miracles



Introduction

India has seen three phases of RCC construction. Reinforcement through Mild Steel was the first phase followed by usage of CTD bars in the second phase. The third phase started in 90's with introduction of rebars being manufactured through TMT process .



Tata Steel was the first in India to develop Thermo Mechanically Treated (TMT) rebars under Tata Tiscon brand. Tata Tiscon rebars are hot rolled from steel billets and subjected to PLC controlled online thermo mechanical treatment in three stages of:

- Quenching
- Self-tempering
- Atmospheric cooling.

Tata Tiscon is the most acclaimed rebar Superbrand and is also the Asia's Most Promising Brand in rebar category. As a leader in this segment Tata Tiscon rebars are available in several categories:

- Tata Tiscon 500D
- Tata Tiscon CRS
- Tata Tiscon 600
- Tata Tiscon Super Ductile

Tata Tiscon Readybuild solution provides rebars in customized length and shapes in accordance with the customer requirements.



Good strength, bond with concrete, thermal expansion characteristics (similar to concrete) and bendability are prime attributes which make Tata Tiscon rebar most effective reinforcing material for engineering of RC structures.

In this pursuit of customer delight Tata Tiscon presents the latest innovation in TMT rebar. We are proud to present to you the most technologically advanced 6mm TMT rebar to optimize the usage of steel in RC structures.



Tata Tiscon 6mm Rebars

6mm rebars are used for strengthening concrete construction, where load bearing requirement is not critical. The advantages of using 6 mm rebars are:

- It is an economical solution to customers rebar requirement.
- It has a superior finish and a uniform rib pattern, higher elongation because of its consistent properties with minimum Yield Strength of 500 Mpa.

Tata Tiscon has pioneered 6mm TMT rebar to fulfil the gap in rebar section mix availability. Tiscon 6mm rebar has ample strength along with superior flexibility vis-a-vis other rebars available in this category. It also provides higher ductility and is easy to use unlike rebars with higher diameters.



Why 6mm Rebars

6mm rebars are a superlative choice for many applications like slabs, ledges, stirrups, railings, parapet and similar structures which can be constructed with 6mm rebars only.

Using 6mm rebars results in 5-8% lesser usage of steel and thus a consequential decrease in the cost of construction. Tata Tiscon is proud to present a collection of small wonders for Construction Miracles using Tata Tiscon 6mm.

6 TATA TISCON mm REBAR

Small Wonders for Construction Miracles

Could I save my rebar cost by using 6mm rebars from Tata Tiscon?

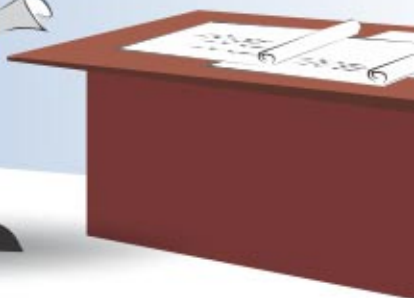
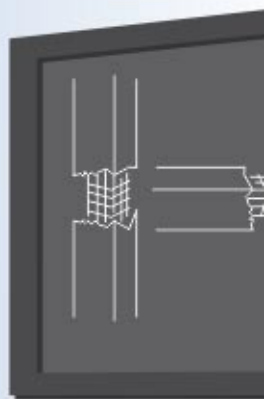
Let me show you how and where all 6 mm rebars can be used in building homes. Using these bars, you can save upto 7% on total cost of steel rebars being used for home construction.

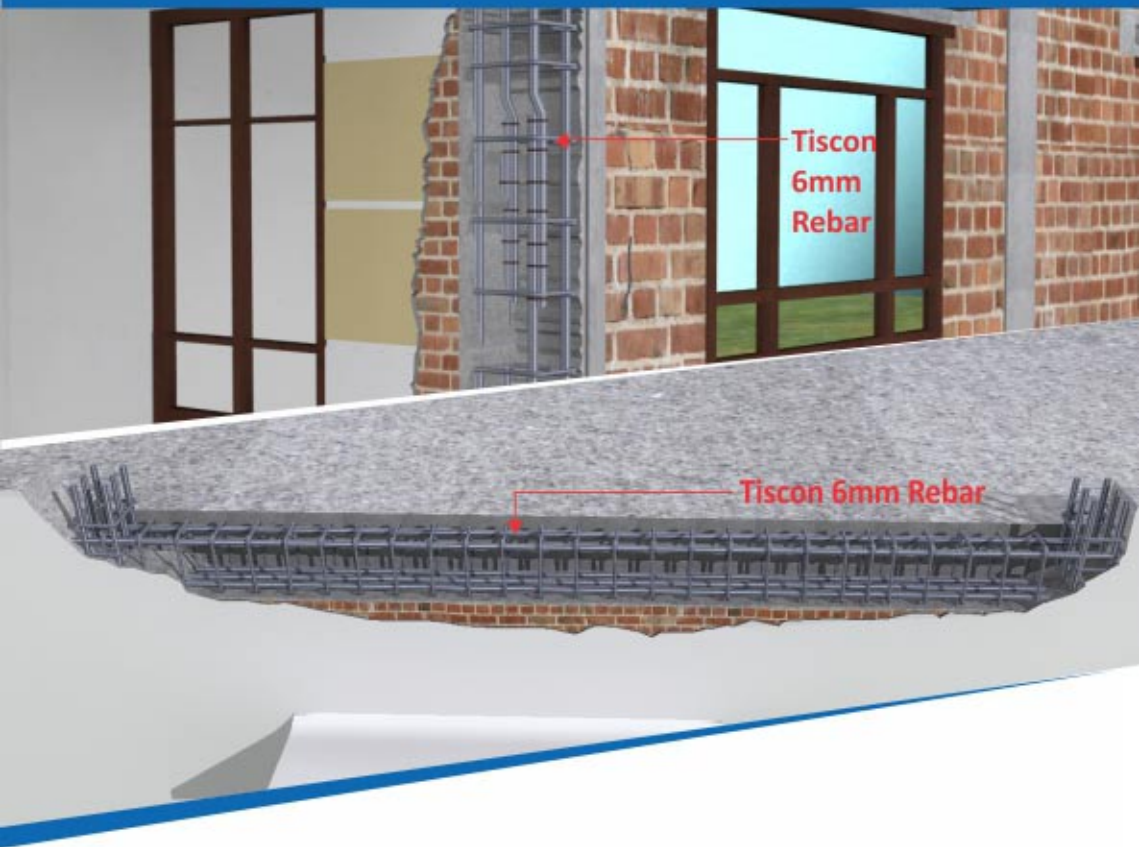


STIRRUPS

Stirrups are generally made out of 8mm rebars. By carefully choosing, upto 25% of these could be replaced with 6mm stirrups.

Ok Sir! But I want to know more.





IS 456: 2000 specifies conditions for providing ‘minimum reinforcement’ to various structural members. Sections 26.5.1.6 (beam stirrups) and 26.5.3.2 (column reinforcement) clearly allow for 6mm stirrups* to be used at lower steel intensity.

**Stirrup spacing with 6mm stirrups in beams and columns in many cases has to be lesser than it is with 8mm stirrups. Please consult your engineer for details.*

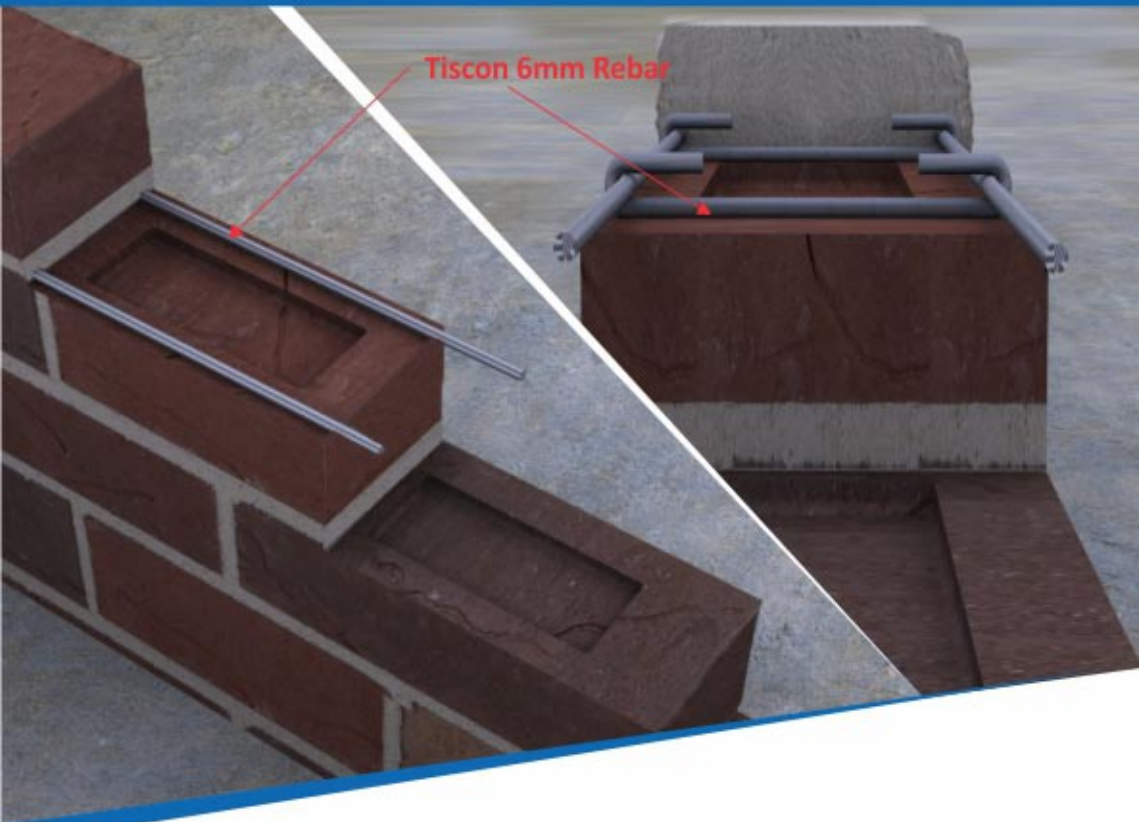


MASONRY REINFORCEMENT



Tiscon 6mm rebars can be used for reinforcing half- brick wall and also concrete bands in masonry buildings.

That's good! Where else could we use Tiscon 6mm rebars?



Masonry Reinforcement improves the structural performance of masonry walls by providing additional resistance to lateral loads e.g. wind. It also reduces the risk of cracking either at stress concentrations around openings or as a result of movement. 6mm rebars are used in masonry reinforcement to provide a definite structure to the wall. Concrete bands as shown above, are used to improve response of brick- masonry units during earthquakes.

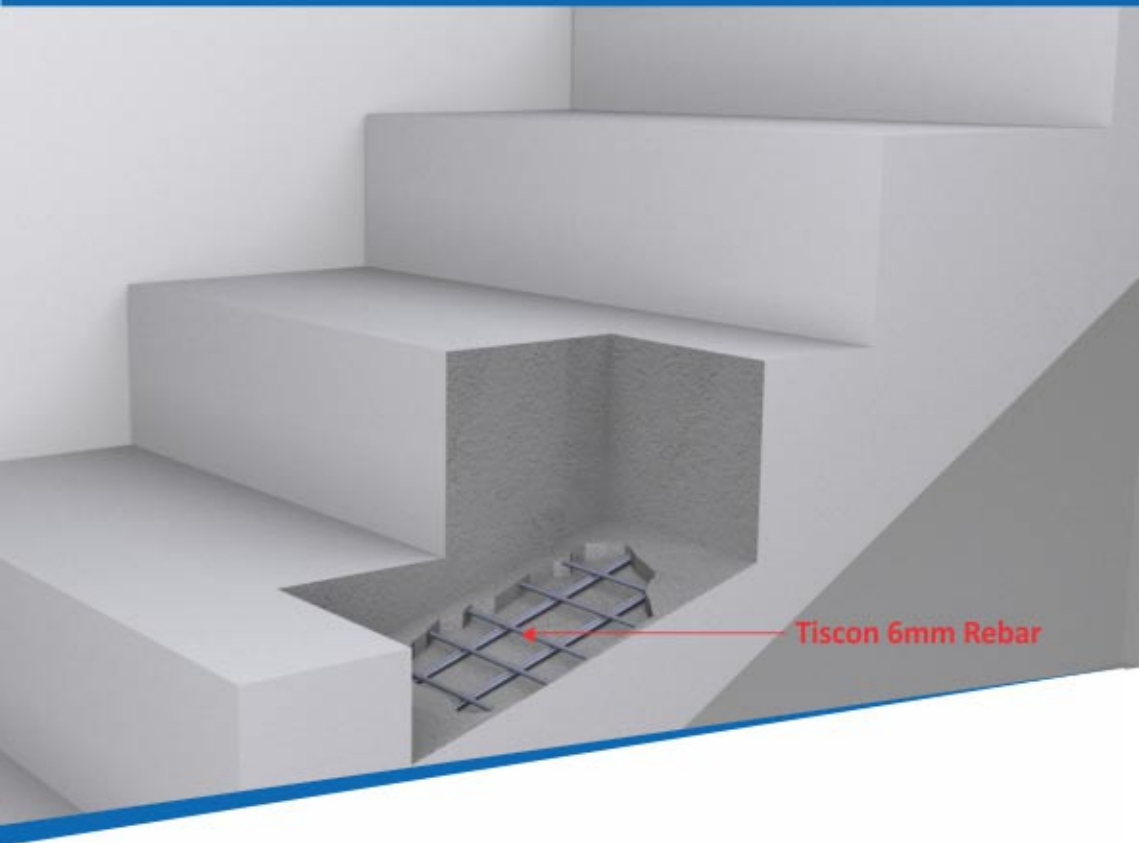


STAIRCASE

This is wonderful!
Please tell me more...

Tiscon 6mm rebars
can be used as
distribution bar in
staircase slab of
your house.





A staircase in common type of house with 3ft to 4 ft width, could use Tison 6mm for distribution bar. This shall require change in 'spacing' specification to take care of steel area provided per unit section. This application builds on the need of minimum reinforcement as explained in the beginning and provided for in section 26.5.2.1(slabs) of IS 456:2000.

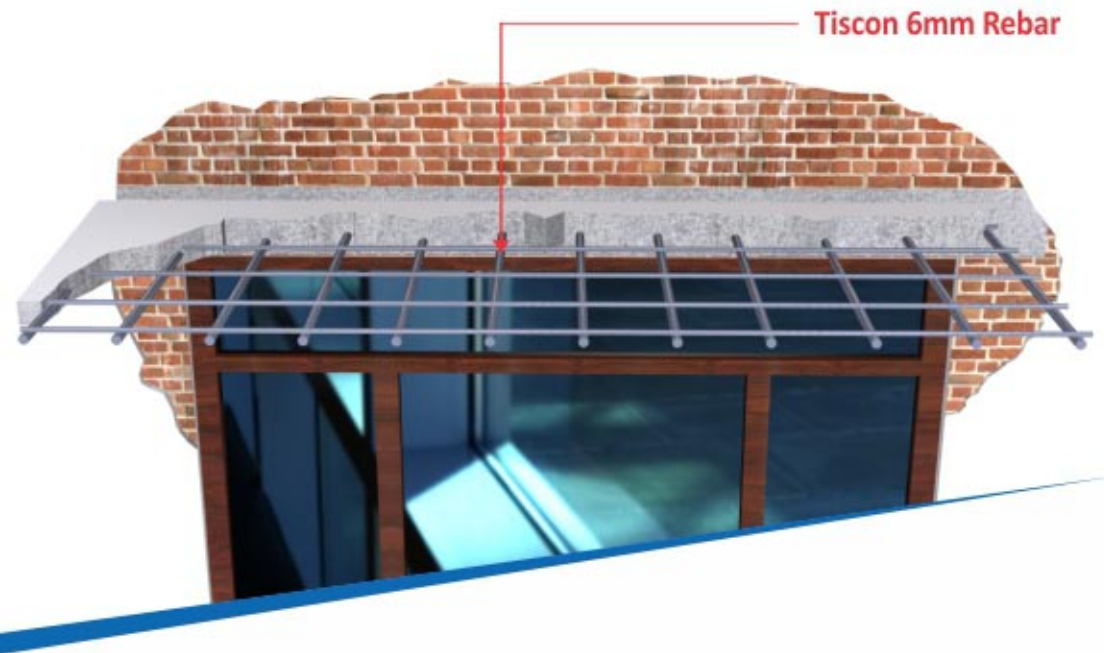


WINDOW SHADE / CHAJJA

Where else could
I use Tison
6mm rebar?

Sunshade slabs for
window and doors
use them as well.





A shade / chhajja is the projecting or overhanging eaves or cover of a roof, usually supported on large carved brackets. The use of 6mm rebars in window shade / chajjas today is very common. Primarily, non-accible shade / chajjas and other architectural elements may be provided with Tiscon 6mm rebars for distribution bars as shown above.



WATER TANK

What other advantages do Tiscon 6mm rebars provide?

Tiscon 6mm rebars have much better ductility and are easy to unlike other rebars.





A water tank is a container for storing water. Various materials are used for making including steel (welded or bolted, carbon, or stainless). Smaller RCC tanks at most homes can use Tiscon 6mm rebars for horizontal distribution bars. This again is a subject of 'detailing' while 'designing parameters' remain same. Designer may suitably choose spacing.



PARAPET, PERGOLA & DECORATIVE ELEMENTS

Ok! Let me guess
where Tison 6mm rebars
could be used next.
Is it my Kitchen
counter-slab?

Sure! But before that
let's see how these are
used in certain other
applications!





Tiscon 6mm Rebar



Tiscon 6mm Rebar

Many of the structurally not so- critical elements could use 6mm rebars to take care of 'nominal reinforcement' requirement. RCC parapet walls, fascia and other facade elements could be detailed with a mix of 6mm and 8mm rebars.

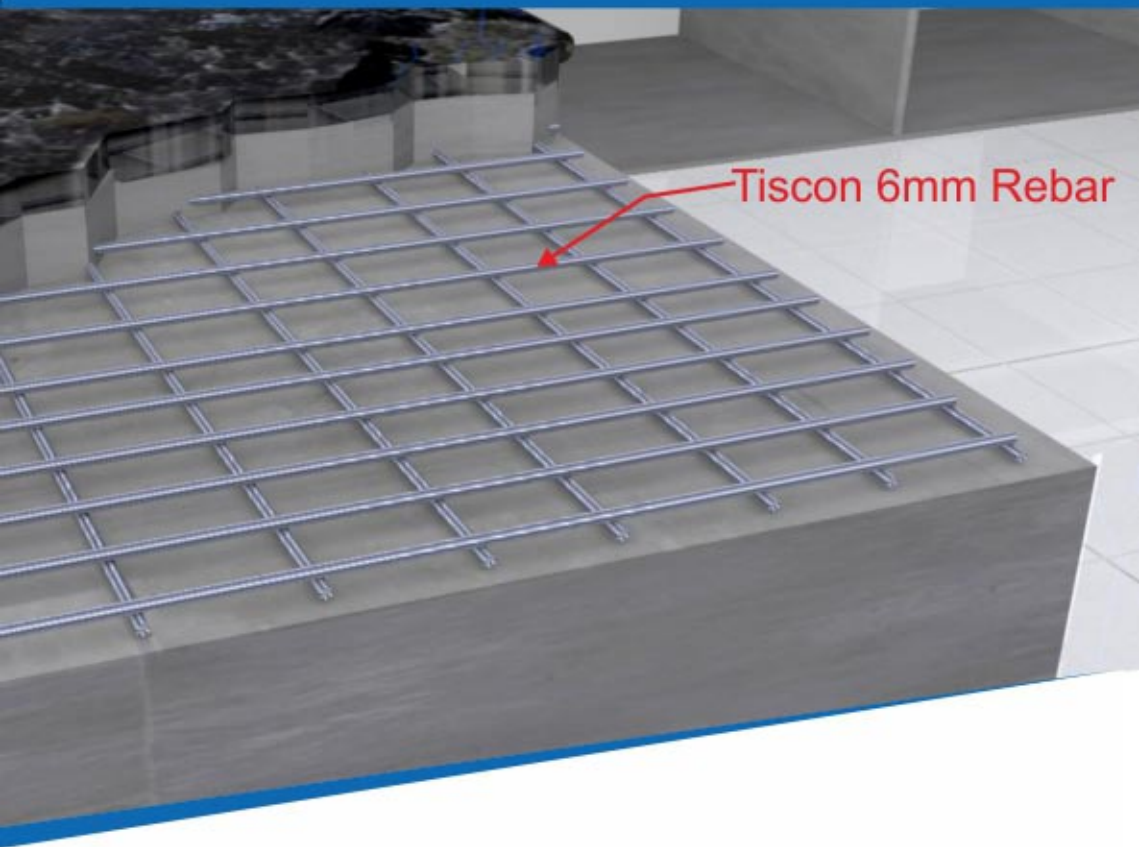


KITCHEN COUNTER & STORAGE SLABS



Hmm. Now Kitchen
Slabs.. Right?

...and more!



Tiscon 6mm Rebar

Hitherto, people detail these elements with 8mm, which is clearly 'over-specified' in these applications. 6mm rebars can be used in constructing counter slabs in kitchen, bathroom & toilets, storage bay, garage, etc. Fundamentally, it's the same provision (section 26.5.2.1 from IS 456:2000), which governs use of 6mm in these applications.



PAVEMENT & HARDSTANDING



That is pretty much everywhere. I guess?

Umm... Few more are left. Let's see them!



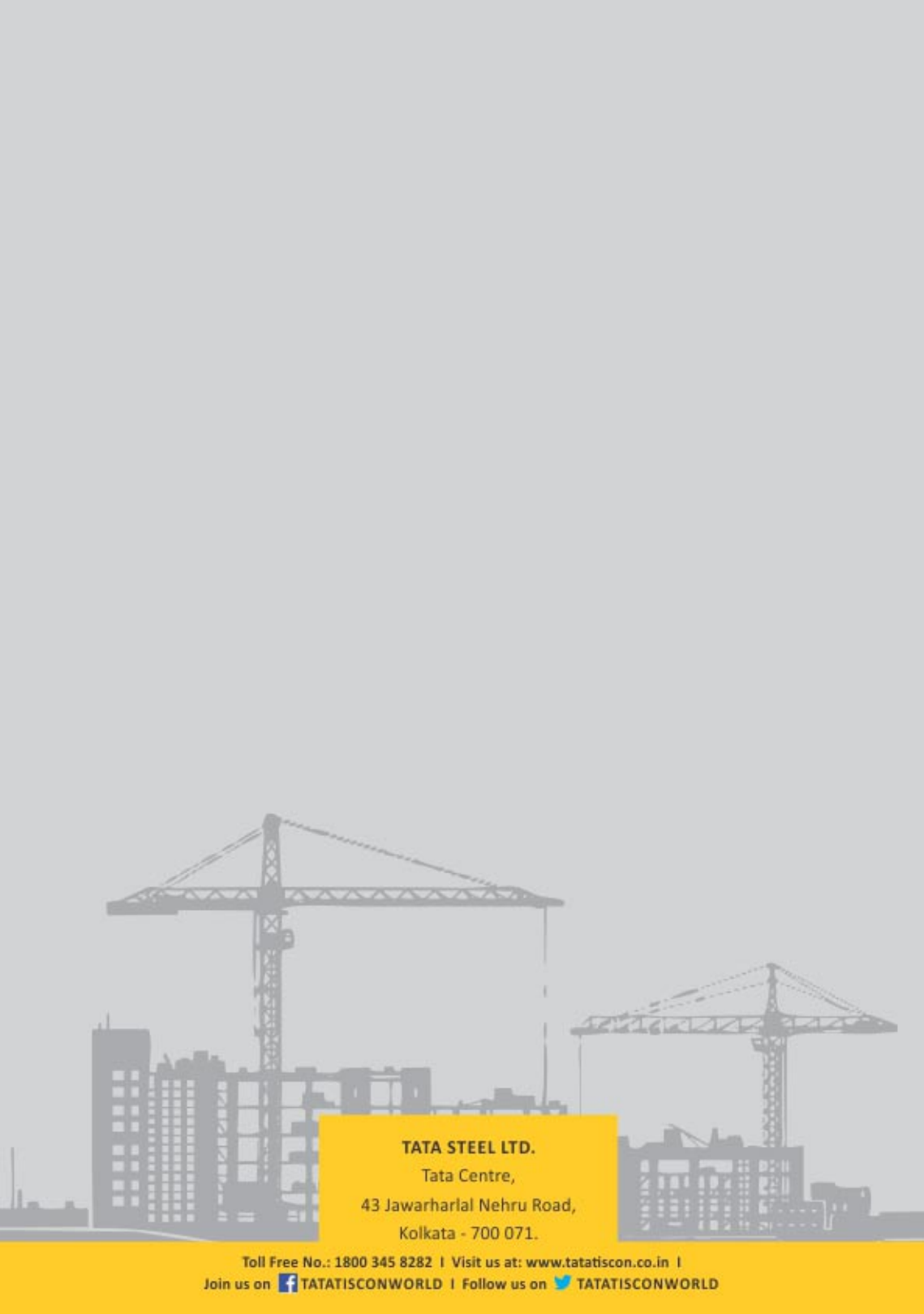
Pavements and hardstanding, which require 'nominal reinforcement', are better and economically detailed with Tison 6mm rebars. This application is not limited to your house but beyond at public places as well, if conditions are appropriate.





Tiscon 6mm offers a dependable low diameter bar option, enabling more savings opportunities for the home builders.

Thank you Sir! This helped me gain a better understanding of Tiscon 6mm rebars and why one should choose it above other rebars.



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