



Pure TMT Bars

### Corporate Head Office

JSW Steel Ltd.  
JSW Centre  
Bandra Kurla Complex, Bandra (East), Mumbai - 400 051.  
E-mail: [jswneosteel@jsw.in](mailto:jswneosteel@jsw.in)  
Toll-free No: 1800 225 225

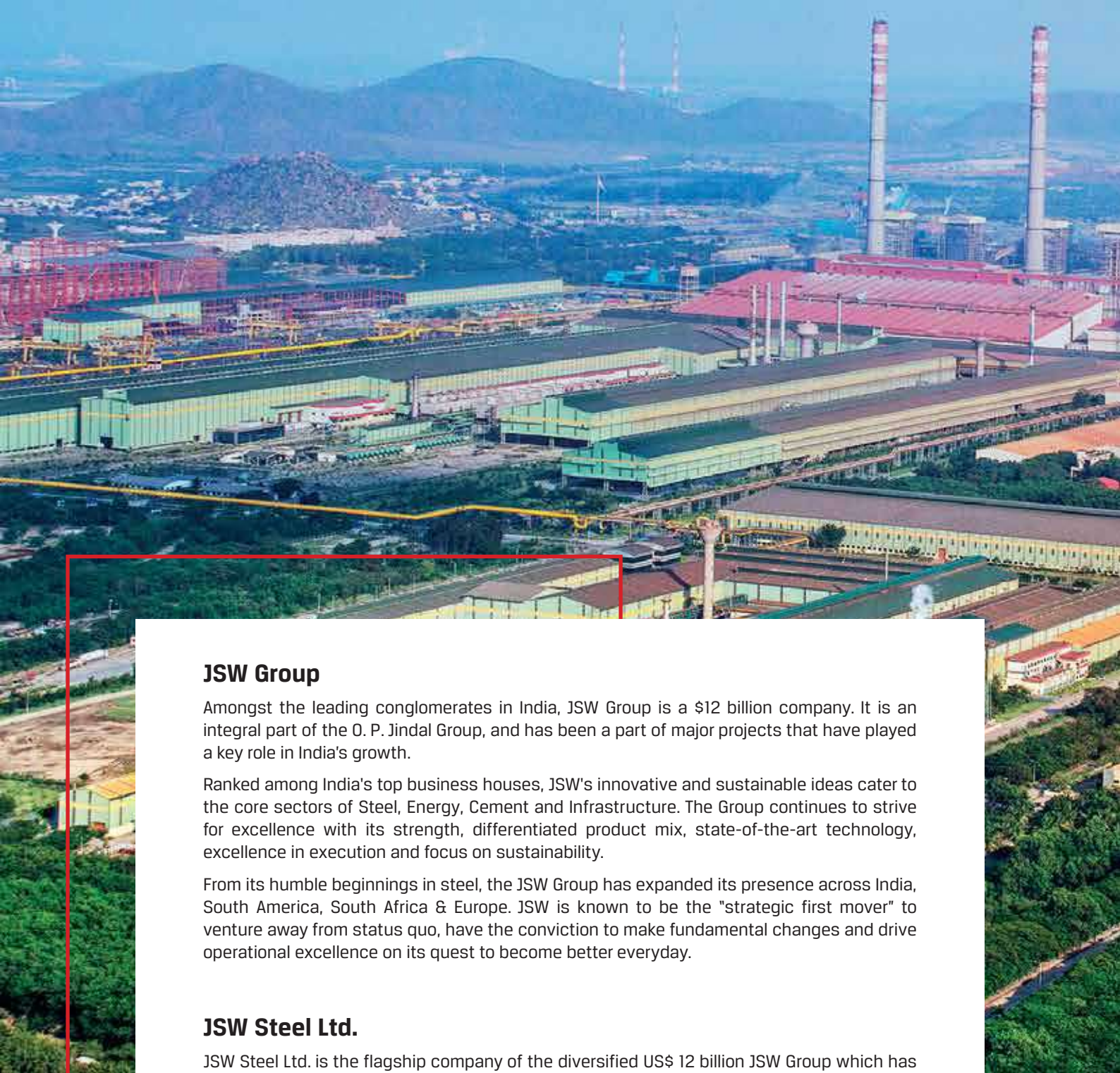


Pure TMT Bars

# Better Strength, More Savings

## Fe 550D





### JSW Group

Amongst the leading conglomerates in India, JSW Group is a \$12 billion company. It is an integral part of the O. P. Jindal Group, and has been a part of major projects that have played a key role in India's growth.

Ranked among India's top business houses, JSW's innovative and sustainable ideas cater to the core sectors of Steel, Energy, Cement and Infrastructure. The Group continues to strive for excellence with its strength, differentiated product mix, state-of-the-art technology, excellence in execution and focus on sustainability.

From its humble beginnings in steel, the JSW Group has expanded its presence across India, South America, South Africa & Europe. JSW is known to be the "strategic first mover" to venture away from status quo, have the conviction to make fundamental changes and drive operational excellence on its quest to become better everyday.

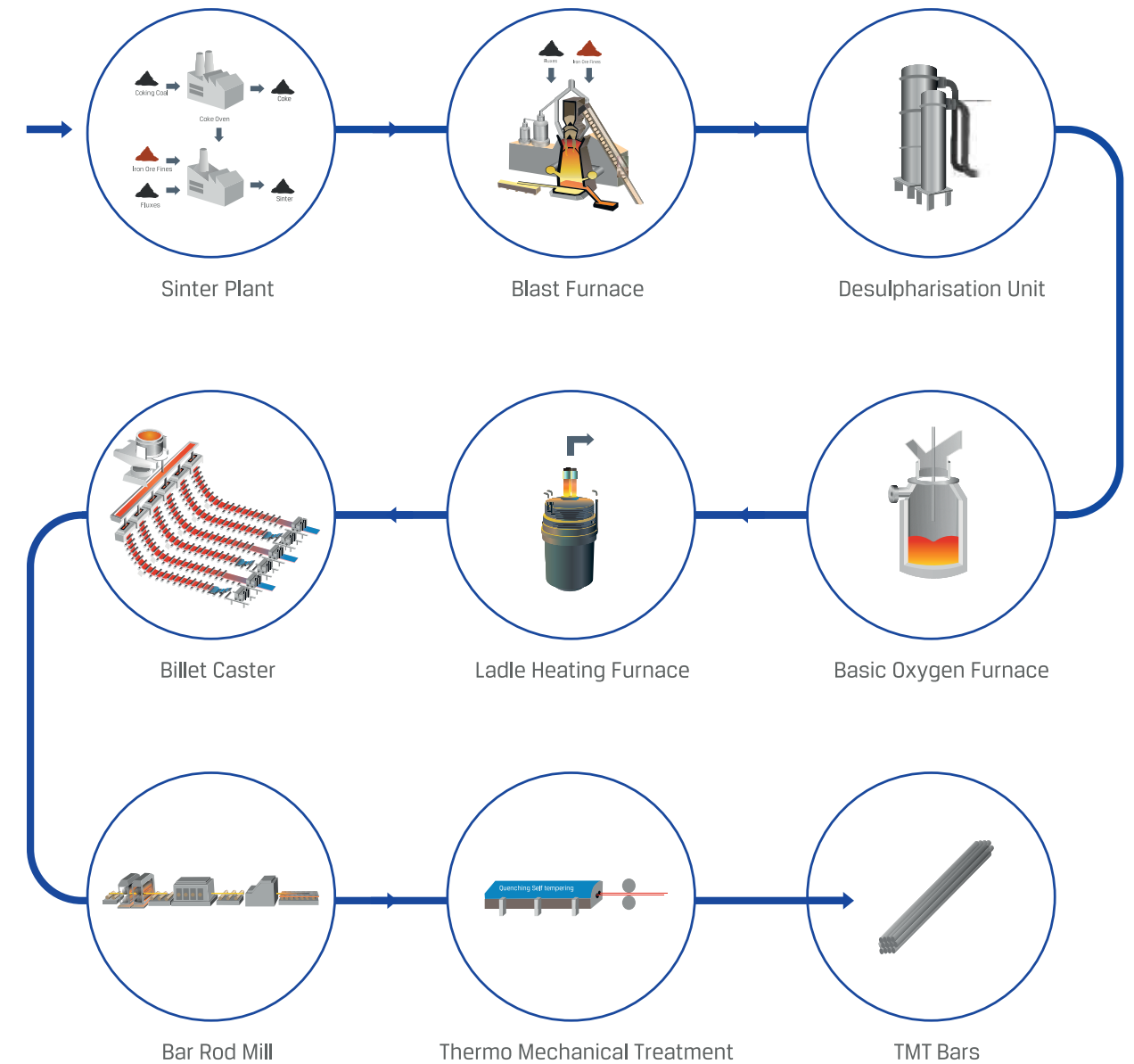
### JSW Steel Ltd.

JSW Steel Ltd. is the flagship company of the diversified US\$ 12 billion JSW Group which has a leading presence in sectors such as steel, energy, infrastructure, cement, sports among others. From a single manufacturing unit in the early 1980s, JSW Steel Ltd, today, is one of the leading integrated steel companies in India with an installed capacity of 18 MTPA, and has plans to scale it up in India.

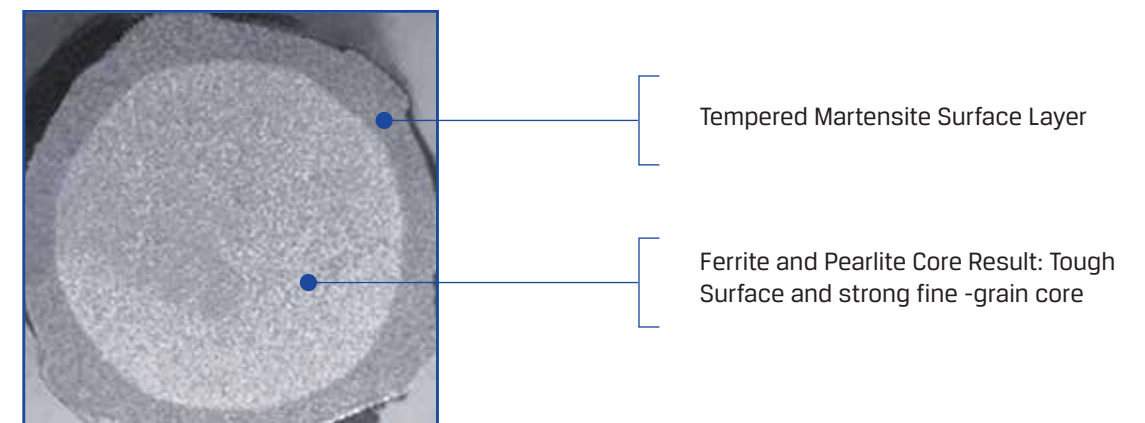
JSW Steel's manufacturing facility at Vijayanagar, Karnataka is the largest single location steel-producing facility in India with a capacity of 12 MTPA. The Company has been at the forefront of state-of-the-art, cutting-edge technology, research and innovation while laying the foundation for long-term growth.

JSW Steel Ltd. has been widely recognised for its business and operational excellence. Key honours & awards include World Steel Association's Steel Sustainability Champion (2019), Deming Prize for Total Quality Management at Vijayanagar (2018) and Salem (2019), DJSI RobecoSAM Sustainability Industry Mover Award (2018) among others. JSW Steel is the only Indian company ranked among the top 10 steel-producers in the world by World Steel Dynamics for the last 10 consecutive years.

# Manufacturing Process



## Typical Macrostructure of JSW Neosteel Fe 550D



# JSW Neosteel Fe 550D

Super-premium high strength and high ductility TMT re-bars typically used in the construction of all residential & commercial projects. Fe 550D bars are also used in projects like metros, bridges, highways etc. as well as specialized infrastructure projects like nuclear power plants. These are also used in earthquake-prone areas due to a high value of percentage elongation.



Constructing the same structure  
with 2 different grades of steel  
G + 14 building



Fe 550D

Fe 500D

\* Actual steel savings will depend on the design, number of floors, seismic zone and other factors specific to the construction.

# JSW Neosteel Fe 550D Benefits

Here's how stronger steel brings efficiency to your construction



## Lower Steel Consumption

Structures designed by JSW Neosteel 550D consumes less steel, Upto 15% of steel savings.



## Low Labour cost

Using less numbers of bars means using less labour which saves cost.



## Cost Saving

Consumption of TMT rebars is less in Fe 550D based on the same load bearing structure.

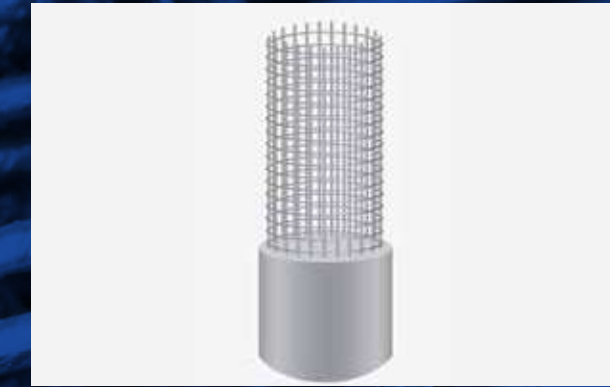


## Time Saving

Lesser time is needed for placing/tying of bars and less weight on cranes improves construction efficiency.



High density of Fe 500D grade TMT rebars



Increased spacing due to lesser rebars of Fe 550D



## Strong Structure

Fe 550D based designed structure is capable to bear more load than that based on Fe 500D.



## More Space

The cross-sectional area of columns made of Fe 550 TMT rebar is less than that of Fe 500D for the same load bearing design. Hence, the structure based on Fe 550D gives more carpet area.



## Earthquake Resistance

Higher Strength of Fe 550D TMT provides greater protection from earthquakes.

\* Actual steel savings will depend on the design, number of floors, seismic zone and other factors specific to the construction.

## Product Range and Maximum Weight

Nominal Size	Tolerance Wt/m	"Maximum Wt/m (kg/m)"	"Nominal Size (mm)"	Tolerance Wt/m	"Maximum Wt/m (kg/m)"
8	+0/-7%	0.395	25	+0/-3%	3.85
10	+0/-7%	0.617	28	+0/-3%	4.83
12	+0/-5%	0.888	32	+0/-3%	6.31
16	+0/-5%	1.58	36	+0/-3%	7.99
20	+0/-3%	2.47	40	+0/-3%	9.86

## Chemical Properties

Elements	IS 1786:2008 Amend.No.4 Fe 550D	JSW Neosteel Fe 550D*
% C (Max)	0.25	0.24
% S (Max)	0.04	0.04
% P (Max)	0.04	0.04
% (S+P) (Max)	0.075	0.07
% N (Max)	0.012	0.012
CE (Max)	0.61	0.50

\*Values meets the requirement of IS 1786:2008, Amnd No.4, however the actual results will have improved values which will be reflected in MTC.

## Mechanical Properties

Product Attributes	IS 1786:2008 Amend.No.4 Fe 550D	JSW Neosteel Fe 550D*
YS (Min) Mpa	550	570
UTS (Min) Mpa	600	630
UTS/YS (Min)	1.08	1.12
%El (Min)	14.5	16
% Total El (Min)	5	7

\*Values meets the requirement of IS 1786:2008, Amnd No.4, however the actual results will have improved values which will be reflected in MTC.

## Bend Properties

Grade	Minimum Mandrel Diameter	
	Up to and incl. 20 mm	over 20 mm
JSW NEOSTEEL Fe 550D	4d	5d

## Re-Bend Properties

Grade	Minimum Mandrel Diameter	
	Up to and incl. 10 mm	over 10 mm
JSW NEOSTEEL Fe 550D	6d	7d



# JSW Neosteel Fe 550D

is manufactured in our state-of-the-art rolling mills using the finest raw materials ensuring each TMT bar of JSW Neosteel Fe 550D is of highest quality.

-  **CONSISTENT QUALITY ACROSS THE BAR**
-  **HIGHEST LEVEL OF PURITY**
-  **BEST BONDING WITH CEMENT**



# JSW Neosteel Fe 600

Ultra-premium & ultra high strength TMT re-bars. Typically used in the construction of Specialised structures, subjected to high service loads, heavy-duty infrastructure projects and in cases where the maximum area of reinforcement steel is to be reduced.

## Product Range and Maximum Weight

Nominal Size	Tolerance Wt/m	"Maximum Wt/m (kg/m)"	"Nominal Size (mm)"	Tolerance Wt/m	"Maximum Wt/m (kg/m)"
8	+0/-7%	0.395	25	+0/-3%	3.85
10	+0/-7%	0.617	28	+0/-3%	4.83
12	+0/-5%	0.888	32	+0/-3%	6.31
16	+0/-5%	1.58	36	+0/-3%	7.99
20	+0/-3%	2.47	40	+0/-3%	9.86

## Chemical Properties

Elements	IS 1786:2008 Amend.No.4 Fe 600	JSW Neosteel Fe 600*
% C (Max)	0.3	0.3
% S (Max)	0.04	0.04
% P (Max)	0.04	0.04
% S+P (Max)	0.075	0.075
% N (Max)	0.012	0.012

\*Values meets the requirement of IS 1786:2008, Amnd No.4, however the actual results will have improved values which will be reflected in MTC.

## Mechanical Properties

Product Attributes	IS 1786:2008 Amend.No.4 Fe 600	JSW Neosteel Fe 600*
YS (Min) Mpa	600	620
UTS (Min) Mpa	660	680
UTS/YS (Min)	1.06	1.08
% El (Min)	10	11

\*Values meets the requirement of IS 1786:2008, Amnd No.4, however the actual results will have improved values which will be reflected in MTC.

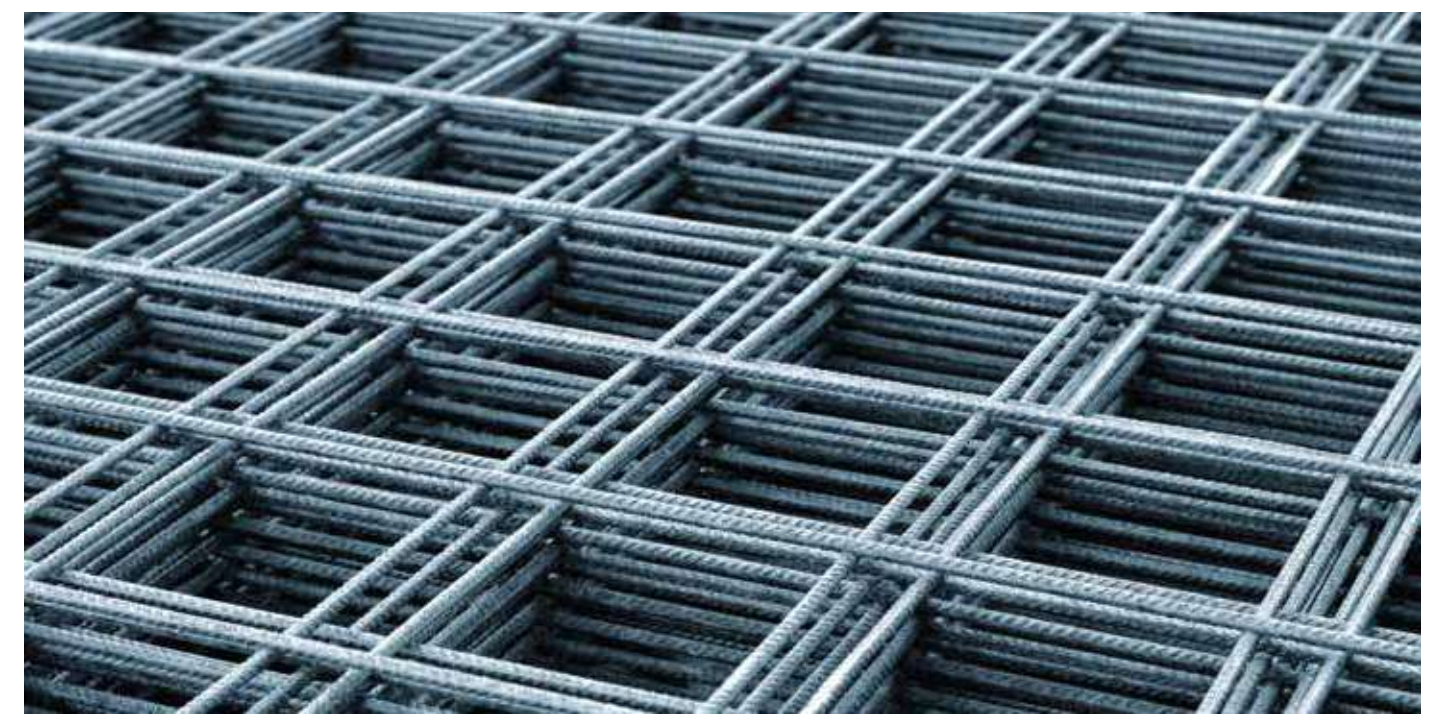
## Bend Properties

Grade		Minimum Mandrel Diameter	
		Upto and incl. 20 mm	over 20 mm
JSW NEOSTEEL Fe 600	ISI 1786 Fe 600	5d	6d

## Re-Bend Properties

Grade		Minimum Mandrel Diameter	
		Upto and incl. 10 mm	over 10 mm
JSW NEOSTEEL Fe 600	ISI 1786 Fe 600	7d	9d

# JSW Neosteel Fe 650



## Product Range and Maximum Weight

Nominal Size	Tolerance Wt/m	"Maximum Wt/m (kg/m)"	"Nominal Size (mm)"	Tolerance Wt/m	"Maximum Wt/m (kg/m)"
8	+0/-7%	0.395	25	+0/-3%	3.85
10	+0/-7%	0.617	28	+0/-3%	4.83
12	+0/-5%	0.888	32	+0/-3%	6.31
16	+0/-5%	1.58	36	+0/-3%	7.99
20	+0/-3%	2.47	40	+0/-3%	9.86

## Chemical Properties

Elements	IS 1786:2008 Amend.No.4 Fe 650*	JSW Neosteel Fe 650*
%C (Max)	0.32	0.30
%P (Max)	0.04	0.03
%S (Max)	0.04	0.03
% (S+P) (Max)	0.075	0.065
% N (Max)	0.012	0.012

## Mechanical Properties

Product Attributes	IS 1786:2008 Amend.No.4 Fe 650	JSW Neosteel Fe 650*
YS (Min) Mpa	650	670
UTS (Min) Mpa	700	720
UTS/YS (Min)	1.06	1.08
% EL (Min)	10	11

## Bend Properties

Product Attributes	Minimum Mandrel Diameter	
	IS 1786:2008 Amend. No.4 Fe 650	JSW Neosteel Fe 650
Upto and Incl. 20 mm	6d	6d
Over 20 mm	7d	7d

## Re-Bend Properties

Product Attributes	Minimum Mandrel Diameter	
	IS 1786:2008 Amend. No.4 Fe 650	JSW Neosteel Fe 650
Upto and Incl. 10 mm	7d	7d
Over 10 mm	9d	9d

# JSW Neosteel CRS

High strength corrosion resistant TMT re-bars. Typically used in construction in coastal areas, areas with the high salinity in the air, industrial areas, construction of marine structures and in areas with high acid content in the air.

JSW Neosteel CRS Grades: Fe 550D CRS, Fe 600 CRS & Fe 650 CRS are available.



## Mechanical Properties

Product Attributes	JSW Neosteel Fe 550D CRS*	JSW Neosteel Fe 600 CRS*	JSW Neosteel Fe 650 CRS*
YS (Min) Mpa	570	620	670
UTS (Min) Mpa	630	680	720
UTS/YS (Min)	1.1	1.08	1.08
%EL (Min)	16	11	11
%Total EL (Min)	7	-	-

## Chemical Properties

Elements	JSW Neosteel Fe 550D CRS*	JSW Neosteel Fe 600 CRS*	JSW Neosteel Fe 650 CRS*
%C (Max)	0.15	0.3	0.30
%S (Max)	0.04	0.04	0.03
%P (Max)	0.12	0.04	0.03
%(S+P) (Max)	-	0.075	0.06
%N (Max)	0.012	0.012	0.012
C.E.(Max)	0.55	-	-
Cr+Cu+Ni+Mo+P (min.)	0.50	0.50	0.50

\*Values meets the requirement of IS 1786:2008, Amnd No.4, however the actual results will have improved values which will be reflected in MTC.





# All Grade Comparison

## Mechanical Properties

Product Attributes	JSW Neosteel Fe 550D*	JSW Neosteel Fe 550D CRS*	JSW Neosteel Fe 600*	JSW Neosteel Fe 600 CRS*	JSW Neosteel Fe 650*	JSW Neosteel Fe 650 CRS*
YS (Min) Mpa	570	570	620	620	670	670
UTS (Min) Mpa	630	630	680	680	720	720
UTS/YS (Min)	1.12	1.1	1.08	1.08	1.08	1.08
% EL (Min)	16	16	11	11	11	11
% Total EL (Min)	7	7	-	-	-	-

## Chemical Properties

Elements	JSW Neosteel Fe 550D*	JSW Neosteel Fe 550D CRS*	JSW Neosteel Fe 600*	JSW Neosteel Fe 600 CRS*	JSW Neosteel Fe 650*	JSW Neosteel Fe 650 CRS*
%C (Max)	0.24	0.15	0.30	0.30	0.30	0.30
%S (Min) Mpa	0.04	0.04	0.04	0.04	0.03	0.03
%P (Max)	0.04	0.12	0.04	0.04	0.03	0.03
% (S=P) (Max)	0.07	-	0.08	0.08	0.065	0.06
% N (Max)	0.01	0.01	0.01	0.01	0.012	0.012
CE (Max)	0.50	0.55	-	-	-	-
Cr+Cu+Ni+Mo+P (Min)	-	0.50	-	0.50	-	0.50

Add-\*Values meets the requirement of IS 1786:2008, Amnd No.4, however the actual results will have improved values which will be reflected in MTC.

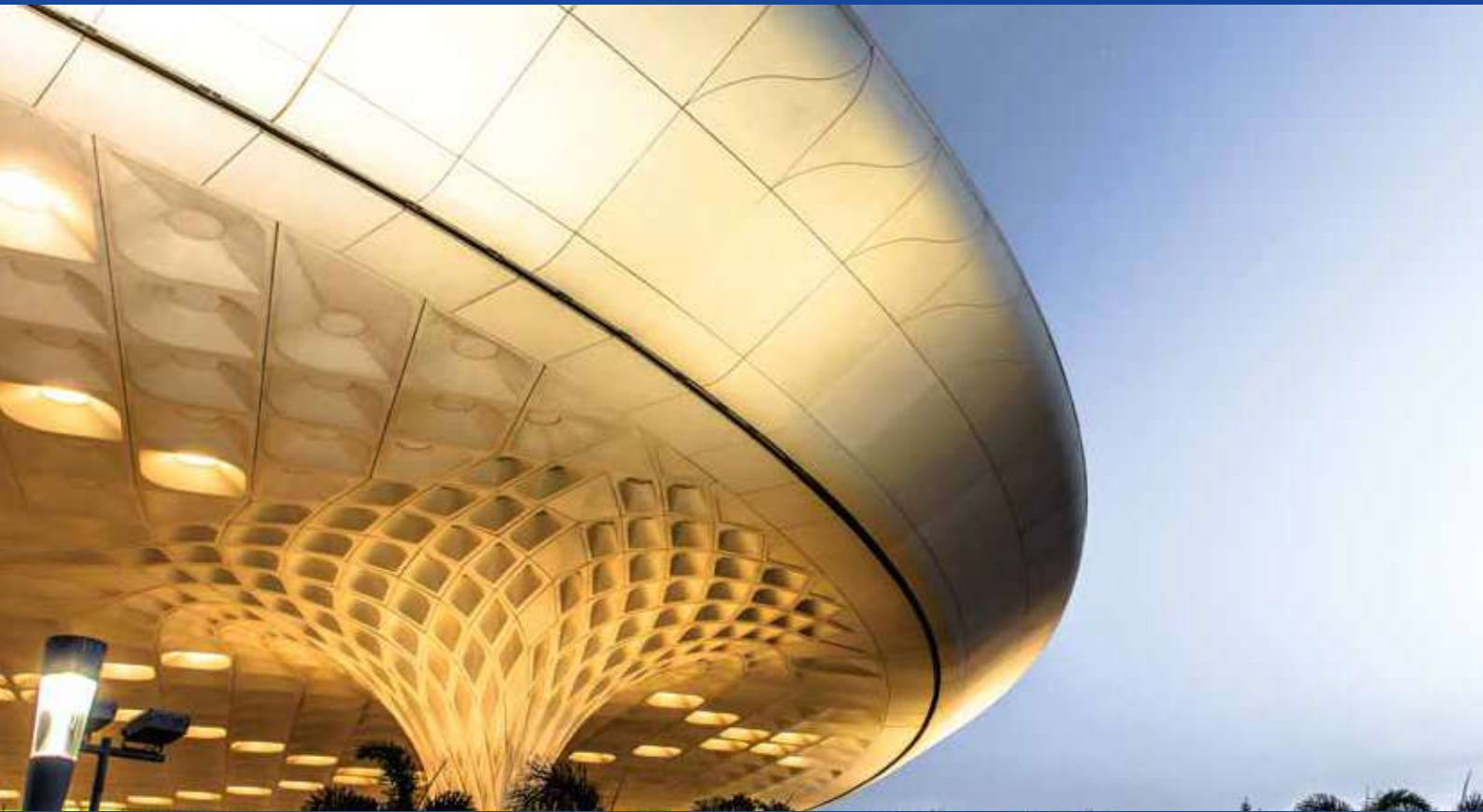


# The Ultimate Test

JSW Neosteel finds applications for general concrete reinforcements in

- Nuclear Power Plants
- Defense Projects
- Expressway & Coastal Bridges
- Road, Bridges, and Flyovers
- Airports & Ports
- Railways & Metros
- Residential Buildings
- Commercial Complexes
- Dams
- Industrial Structures
- Power Plants





Chhatrapati Shivaji International Airport Terminal 2, Mumbai



Indira Gandhi International Airport, Terminal 3, Delhi



Yamuna Expressway



Infosys, Bengaluru



V. O. Chidambaranar Port, Tuticorin, Tamil Nadu



Zuari bridge, Goa



Eastern Freeway, Mumbai



Kakrapar Nuclear - Plant



Metro Projects - Ahmedabad, Bangalore, Chennai, Delhi, Hyderabad, Jaipur, Kochi, Kolkata, Mumbai, Nagpur, Pune