SIGMA™
GRIPLOCK
TMT BARS

CrCu

CrCu 550 SD

MORE STRENGTH TO INDIA'S INFRASTRUCTURE

33+ YEARS EXPERIENCE

INTEGRATED STEEL PLANT

WEATHER RESISTANT

MICRO ALLOY TECHNOLOGY

CrCu 550 SD

Introducing the groundbreaking ***"Sigma Griplock CrCu Fe550 SD TMT Bars"*** – a revolutionary concept in the Indian market. These Micro Alloy TMT bars are crafted using Chromium, Copper, and Nickel, which transform their properties and render them corrosion resistant from the inside out. With a remarkable ductility of 550, these bars are exceptionally Strong, Tensile and comes with superior Elongation. Offering an ideal fusion of corrosion resistance and ductility, the **Sigma Griplock CrCu Fe550 SD TMT Bars** are the perfect choice for any construction project.

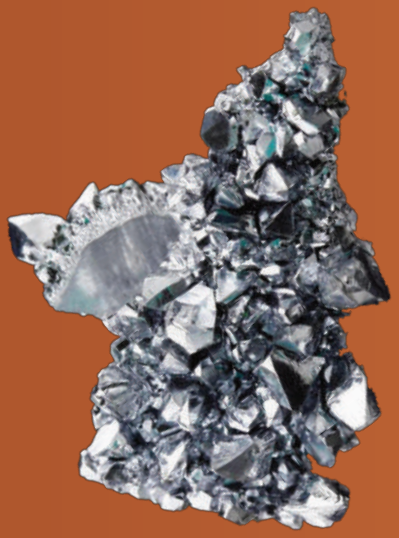
What is

CrCu

CrCu, stands for Chromium and Copper, which grants our TMT Bar the capability to withstand and combat Chloride Induced Corrosion effectively.

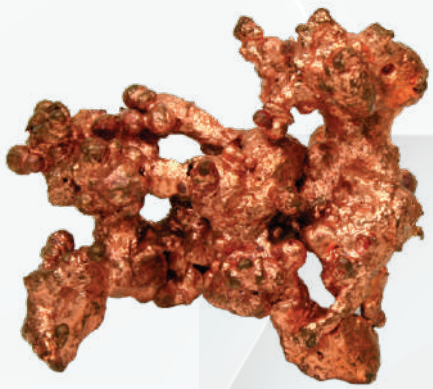
It's distressing to learn that the chloride level in groundwater is rising due to Pollution, posing a threat to building structures. The accelerated rusting of TMT bars inside houses is certainly alarming.
Utilizing Micro Alloying Technology, this innovative product aims to slow down the process of rusting and increases their lifespan.

CORROSION
RESISTANCE
WITH EXCELLENT
DUCTILITY



Chromium (Cr) is included in the composition of the Sigma Griplock CrCu Fe 550 SD TMT Bar to enhance its resistance against oxidation and corrosion. This is achieved by the creation of a protective layer of chromium oxide on the metal's surface. In addition, the addition of chromium to Micro-alloy steel enhances its Mechanical Properties, improves wear resistance, and strengthens its performance at high temperatures.

Copper (Cu) in the composition of the Sigma Griplock Micro Alloy TMT Bar offers notable advantages to its chemical properties, primarily by enhancing its resistance to corrosion. Copper plays a crucial role in preventing the formation of rust, making it an essential element in various types of weathering steel that are specifically designed for applications exposed to corrosive environments.

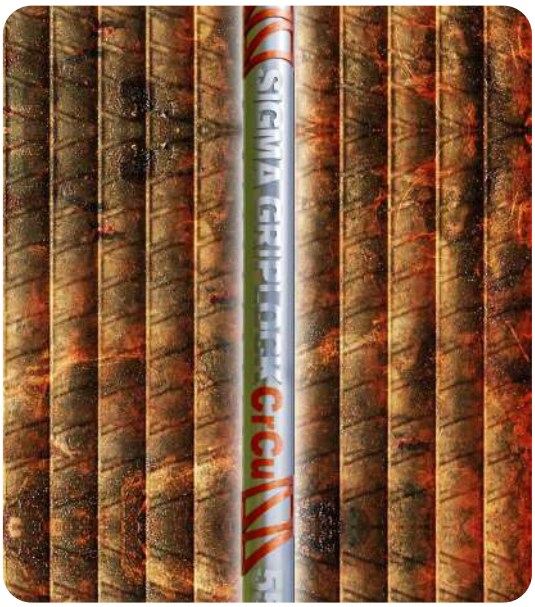


Weather Resistant
TMT BARS

CrCu
550 SD

Introducing our weather-resistant strong TMT bars, engineered to withstand the toughest of conditions while providing unparalleled structural support.
Crafted with precision and innovation,
Sigma Griplock CrCu Fe 550SD TMT Bars are specially designed to endure extreme weather conditions, including high humidity, heavy rainfall, and corrosive environments.

"Unyielding Strength,
Through Any Weather



Corrosion Resistant

Defying Rust and Corrosion: Our Corrosion-Resistant TMT Bars for Enduring Structural Integrity

Earthquake Resistant

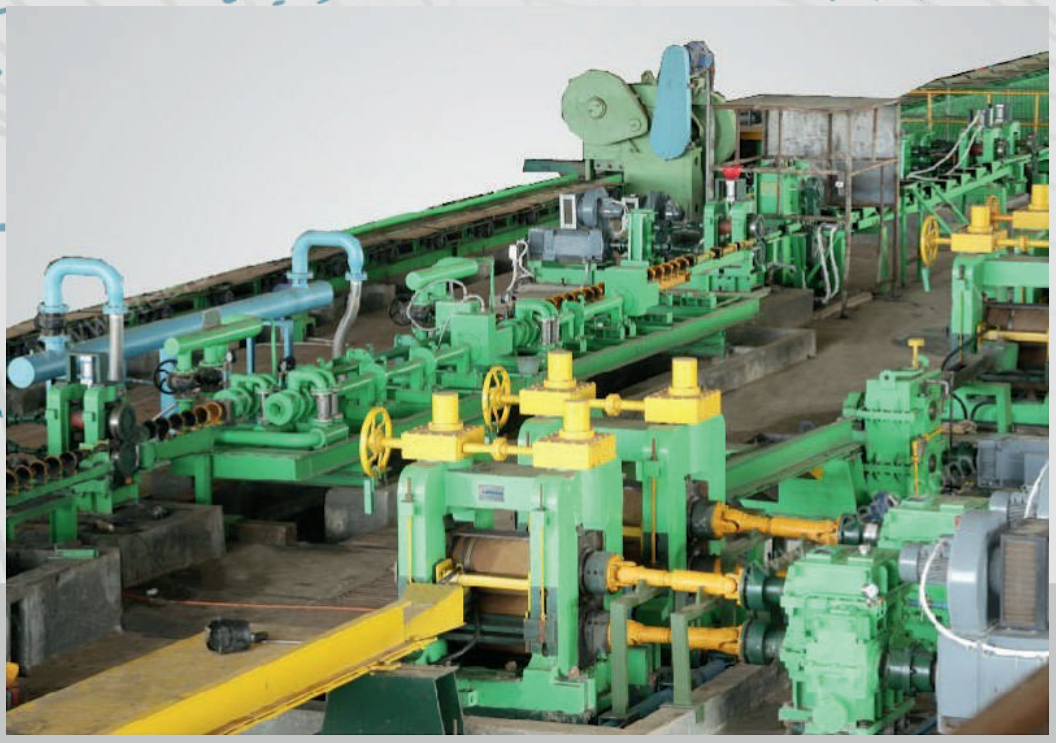
Solid Foundations, Resilient Structures: Our Earthquake-Resistant TMT Bars for Ultimate Safety and Stability

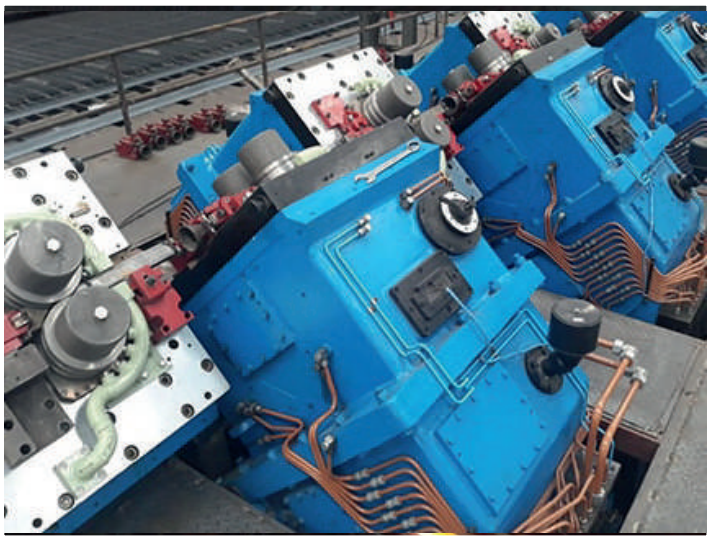
Higher Load Bearing Capacity

Redefining Strength: High Load-Bearing Capacity TMT Bars for Superior Structural Support

Superior Ductility & Bendability

Flexibility Meets Strength: Power of Superior Ductility and Bendability with Our TMT Bars





Uniform physical properties: Sigma Griplock TMT Bars possess uniform physical properties, ensuring consistent performance and structural reliability.

Uniform weight distribution: These TMT bars exhibit nominal variation between the middle and back end, ensuring uniform weight distribution and stability in structural applications.

Consistent dimensions throughout: There is no variation in dimensions along the length of the rod, guaranteeing uniformity and predictability in the product's size.

Building Excellence with Advanced Techniques and Block Mill Rolling

SIGMA GRIPLOCK CrCu TMT bars have passed BIS standards and even better on many parameters.

MECHANICAL PROPERTIES

MECHANICAL PROPERTIES						
Parameter	BIS FE500	SIGMA FE500	BIS FE550	SIGMA FE550	BIS FE550D	SIGMA FE550SD CrCu
Yield Strength	500	510	550	560	550	560
Ultimate Tensile Strength (N/mm^2)	545	585	585	600	600	640
Elongation (%)	12	16	10	15	14.5	16
Total Elongation (%)	-	-	-	-	5	7

CHEMICAL PROPERTIES

CHEMICAL PROPERTIES						
Constituent	BIS FE500	SIGMA FE500	BIS FE550	SIGMA FE550	BIS FE550D	SIGMA FE550SD CrCu
Carbon	0.30 (Max)	0.25	0.30 (Max)	0.25	0.25 (Max)	0.20
Sulphur	0.055 (Max)	0.045	0.055 (Max)	0.045	0.040 (Max)	0.030
Phosphorus	0.055 (Max)	0.045	0.055 (Max)	0.045	0.040 (Max)	0.035
Sulphur & Phosphorus	0.105	0.090	0.100	0.090	0.075 (Max)	0.065
Micro-Alloy Elements	-	-	-	-	-	0.45
Manganese	-	0.55	-	0.55	-	0.60

Micro alloyed reinforcement steel

The right solution!

CrCu 550 SD

- Increase in structure lifespan
- Improved corrosion resistance
- High yield strength with optimum ductility
- Superior weldability than convetional rebars
- Better performance in fire or earthquake

SIGMA GRIPLOCK

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