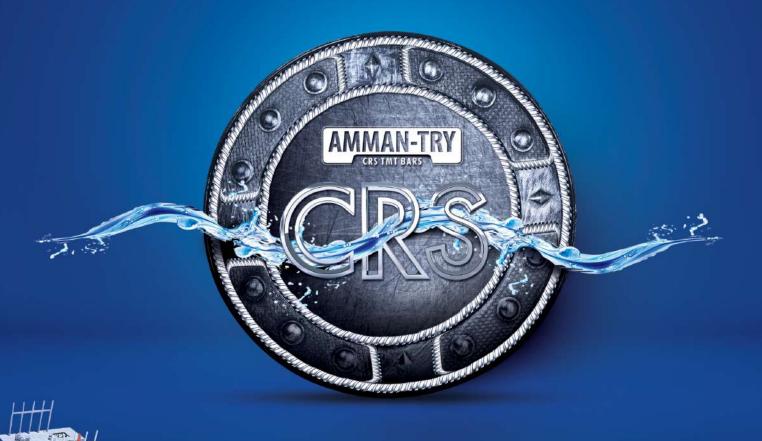
ANTI CORROSION —— COMPLETE PROTECTOR ——

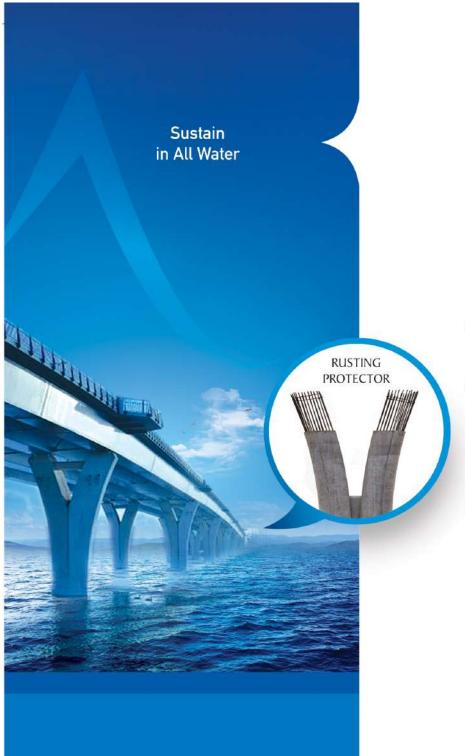














Corrosion:

Corrosion is an enemy of steel and concrete building structures. This is a natural phenomenon and can not be stopped. It causes detoriation of R.C.C structures and creates economical loss to every one in the universe.

Reason for corrosion:

- Wherever there is humidity corrosion sets steadily and destroys damaging houses, bridges and any construction that same used with ordinary steel.
- Corrosion of the reinforcement bars occurs when neutralization takes place with atmospheric carbon dioxide.
- When chlorides from outsides reaches steel conversion of iron to iron oxide which leads to corrosion.
- PH value of water used for concrete was less than 8.50%. The oxygen in air in presence of moisture starts attacking the surface of reinforced bars.

Corrosion Resistance:

After conducting various researches for fighting corrosion, we identified the cost effective steel with a composition that enhances corrosion resistance properties, reducing the rate of corrosion.

CRS Process Chart:

Copper Addition

Addition of copper will plug the pores in the rust

Chromium Addition

By adding chromium (Cr) in to steel, increases the passivity of anions. Another advantage is we are making the steel slightly Ferrite thus pitting resistance is increased. Chromium also increases the passivity and will form an invisible layer.

Phosphorous:

Phosphorous acts as inhibitor. This will reduce the anodic reaction.

Process:

These CRS Bars are manufactured through TMT procedure.

Advantages:

- CRS Bars reduces the rate of corrosion from the time of construction and thus lengthening the life of structure.
- AMMAN-TRY CRS are manufactured using judicious selection of corrosion resistant elements and tested at Structural Engineering Research Centre, Chennai.
- CRS (TMT) bars most suited for reinforcement concrete in salty area and sea shore area.



Technical Data

ISI				
Section	Min.Wt. (Kg/Mtr.)	Normal Wt. (Kg/Mtr.)	Max Wt. (Kg/Mtr.)	
06 mm	0.206	0.222	0.238	
08 mm	0.367	0.395	0.423	
10 mm	0.574	0.617	0.660	
12 mm	0.843	0.888	0.932	
16 mm	1.500	1.579	1.658	
20 mm	2.393	2.467	2.541	
25 mm	3.739	3.855	3.971	

Chemical Composition

Min%	Max%
0.45	240
0.15	0.18
0.45	0.60
0.030	0.045
0.030	0.055
0.15	0.25
0.30	0.35
0.15	0.25
	0.15 0.45 0.030 0.030 0.15 0.30

Mechanical Properties

Property	Fe-500	
Yield / 0.2% Proof Strength (Min)	500 N/mm²	
Ultimate Tensile Strength	Minimum 8% above measured yield / proof strength, however not less than 545 N/mm'	
Elongation	12.0 % min	
Bend Test	Satisfies bend test around a mandrel (thro 180°) of 4d for dia upto and including 20mm and 5d for over 20mm dia.	
Re Bend Test	Satisfies Rebend test around a mandrel of 5d for dia upto and including 10mm and 7d for over 10mm dia through 45° bend and 22.5° reverse bend.	



SHRI AMMAN STEEL & ALIED INDUSTRIES (P) LTD, Trichy-01

Customer Helpline: 75503 01234