



BSRM CENTURA

Coated Rebar resists Chloride induced corrosion and prevents rusting.
Conforms to ASTM A 775 / A 775M.

Corrosion of steel reinforcement in concrete structures is a major economic loss for any nation. The integrity of a reinforced concrete structure is dramatically reduced due to corrosion of the reinforcing steel. The main causes of corrosion in concrete structure are:

- Acid Rain
- Carbonation
- Air Borne Chlorides
- Aggregate Contamination in concrete
- Concrete Additives
- Salt Water Immersion and Splash Zone
- Salinity in soil / Brackish water

The effect of corrosion in concrete structure begins with rapid oxidation or rusting of the rebar embedded in the concrete. The rusted rebar swells in volume which destroys the concrete bonding with the rebar



Cracked concrete column due to rebar rusting



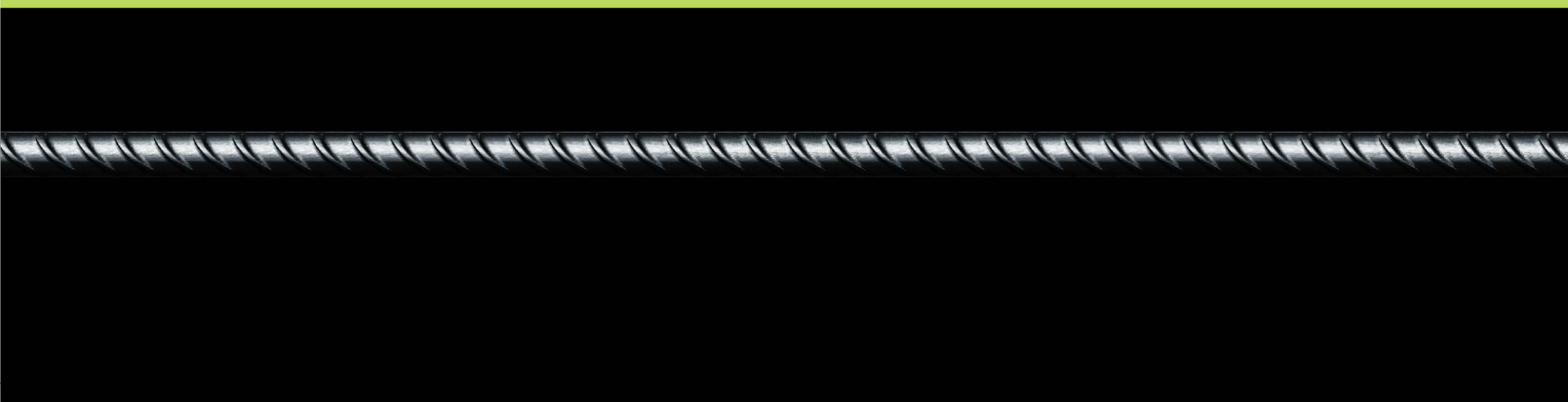
Spalling of concrete cover due to de-bonding induced by rebar rusting

The solution lies in preventing the rebar in concrete coming in contact with moisture and chloride ion by coating the rebar with an inert organic polymer coating. The coating is epoxy powder which is impregnated on the de-scaled, clean and heated rebar surface. The epoxy powder melts and fuses on the rebar surface.

- Fusion Bonded Epoxy Coating or FBEC for short is a TRIED & TESTED technology across the globe.
- Over 30 countries have approved FBEC in their National Specification e.g. ASTM, AASHTO, ISO, DIN, BS, JIS, NACE, ACI etc.
- In USA alone, there are more than 60,000 bridges with FBEC steel rebars.
- All works of US Navy use FBEC rebars.

- In India, more than 1000 bridges, flyovers, buildings and jetties have used FBEC rebars.
- International Standards like ASTM Standard ASTM A775/A775M and NACE standard NACE SP 0395 specify the requirements of FBEC Rebars.
- FBEC is routinely specified for infra-structures desiring 75-100 yrs of service life.

Globally over one million RCC structures have used FBEC rebars for corrosion free longevity.





Cracked Concrete Ceiling

Epoxy coating thickness requirements on rebar as per ASTM A 775 / A 775M.

Bar Sizes	Max.	Min.
10mm to 16mm	300µm	175µm
20mm to 50mm	400µm	175µm

Bend Test Requirements of Epoxy Coated Rebar as per ASTM A 775 / A 775M.

Bar No	Mandrel Dia.	Bend	Time max. s
10mm	75mm	180°	15 s
12mm	100mm	180°	15 s
16mm	125mm	180°	15 s
20mm	150mm	180°	15 s
22mm	175mm	180°	45 s
25mm	200mm	180°	45 s
32mm	250mm	180°	45 s
40mm	430mm	90°	45 s
50mm	580mm	90°	45 s





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