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MST-BAR®



Composite rebar, glass fiber reinforced polymer(GFRP) reinforcement bar is the solution to corrosion of reinforced concrete structure. MST-BAR® is an excellent replacment for conventinal types of steel rebar.

MST-BAR® properties include:

- Zero corrosion
- Tensile strength of 1000MPa (2 x tensile strenght of steel)
- +68GPa of Tensile Modules
- 25% of steel weight
- +20MPa bond strength
- Electrical insulator
- Thermal insulator
- x20 times of fatigue resistance
- +90% retain in tensile strength and 100% retain in elastic modules in high pH environment

DESIGN CODE

FRP Rebar does not behave in the same manner as steel rebar because the mechanical properties are different in some cases. FRP rebar has higher strength but lower elastic of modulus, therefore direct replacement of steel is not always possible with FRP rebar and FRP design codes required.

Following design codes required in design with FRP rebar:

Canada

CSA

- CAN/CSA-S6-06(Canadian highway bridge design code)
- CAN/CSA-S806-02(Design and construction of building component with FRP)

ISIS

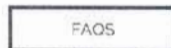
- Design Manual NO.3 (reinforcement concrete structure with FRP)
- Design Manual NO.5 (Prestressing concrete structure with FRP)

USA

ACI

- ACI 440.1R-06
- ACI 440R-07
- ACI 440.5-08
- ACI 440.6-08
- AASHTO GFRP-1

Did we forget something? ask our expert



Download MST-BAR® GIII Material Specification:



MST-BAR Grade III
Material Specification

Watch the video of MST-BAR® during test: