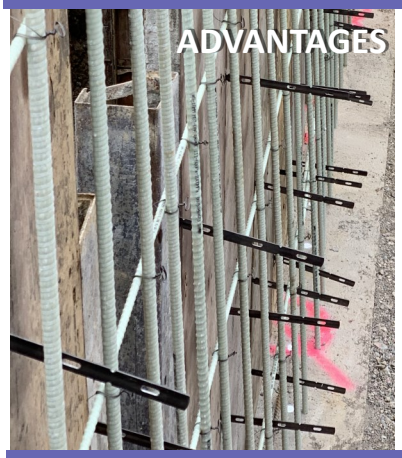
MST BAR
MAXIMUM STRENGTH GFRP

4EQ STRUCTURAL BAR®

ICC ES LISTED

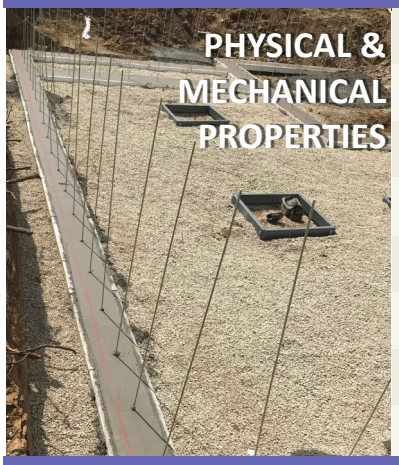
4EQ Structural Bar® is a high-strength composite reinforcing bar from MST-BAR®. It is the first GFRP rebar to pass all performance requirements of ICC-ES Acceptance Criteria AC454 and to be issued an ESR report by ICC-ES. 4EQ Structural Bar® is made with code-compliant Vinyl Ester Resin & corrosion-proof ECR Glass Fibers to give your reinforced concrete centuries of serviceability.

ASTM D7957 *4EQ Structural Bar® is an ASTM D7957 Certified Building Material.*



ADVANTAGES

- **ICC-ES ESR 4664**
Meets all ACI standard for reinforcement under ACI 440.1.
- **Code Compliant**
Can be used in 2018 & 2021 IBC and IRC concrete reinforced designs.
- **Cost Effective**
Less $$ than epoxy coated and plain steel rebar.
- **Rust-Proof**
Impervious to chloride ion and chemical attack.
- **Nonconductive & Nonferrous**
Ideal for projects with electromagnetic sensitivity.
- **High Performance in All Climates**
Stronger reinforcement in freeze-thaw regions & guaranteed longevity in coastal regions compared to steel rebar.
- **Superior Crack Control**
80% less crack initiation compared to traditional steel rebar due to high bond strength.
- **Chemical Resistant / No Waterproofing**
Impervious to de-icing salts and corrosive chemicals and eliminates the need for costly waterproofing agents.



PHYSICAL & MECHANICAL PROPERTIES

BAR DIMENSIONS	0.45 in. Diameter
CROSS-SECTIONAL AREA	0.16 in^2
BAR COMPOSITION	Vinyl Ester Resin & ECR Glass Fiber
BAR PROFILE	Integral Rib Design (No Sand-Coating Required)
ULTIMATE TENSILE FORCE	18.1 kips (80.5 kN)
ELASTIC MODULUS	9427 ksi (65 GPa)
SHEAR STRENGTH	32.9 ksi (227 MPa)
PULL-OUT CAPACITY	3600 psi (24.8 MPa)

APPLICATIONS

4EQ Structural Bar® replaces steel rebar for most structural design concrete elements. Design Manual (DM-4EQMST) is available with examples. AGS Concrete Design software is also available through the MST-BAR® manufacturer website. 4EQ Structural Bar® is not currently tested to support seismic elements in Seismic Design Category D & E.

HANDLING & INSTALLATION

Always wear gloves when handling 4EQ Structural Bar® to protect against fiberglass splinters. Avoid direct contact with skin. When cutting 4EQ Structural Bar®, use a diamond blade for best results. Tie and chair 4EQ Structural Bar® as you would steel rebar. Generally, minimum lap splice length of 24 inches is sufficient unless otherwise specified.

To learn more about 4EQ Structural Bar® and additional high modulus of elasticity MST-BAR® composite rebar products, or to request pricing, give us a call or visit us on the web.

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