



4EQ STRUCTURAL BAR®



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.

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



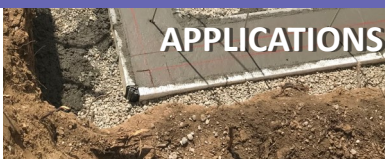
ADVANTAGES

- **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.



Give us a call at any of our branch locations, email us at info@formtechinc.com, or click on formtechinc.com/quote to get a quote. Our experienced Form Tech representatives will answer your questions, and help you get your project started with some of the best concrete forming, shoring, and accessory products in the industry, backed by a professional and detail-oriented staff.



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