

March 29, 2021

SUBJECT: Use of 4EQ® as a 1:1 replacement for #4 Grade 60 Reinforcement in residential foundations

To Whom It May Concern:

4EQ® Structural Fiberglass Rebar are high-strength composite reinforcing bar from MSTBAR®. It is ICC-ES listed in ESR-4664. This Structural Fiberglass Rebar is made with Vinyl Ester Resin & corrosion-proof ECR Glass Fibers with the following properties:

BAR DIMENSIONS	0.45 in. Diameter
CROSS-SECTIONAL AREA	0.16 in. ²
TENSILE STRENGTH	18,100 lbs.
ELASTIC MODULUS	9427 ksi
SHEAR STRENGTH	32.9 ksi
PULL-OUT CAPACITY	3,600 psi

The 4EQ® reinforcement may conservatively replace standard slab on grade reinforcement one to one at spacing noted on plans. It is also a replacement for standard #4 and #5 reinforcement in residential foundations including spread and continuous footings, basement walls (under 4 ft), stem walls, and piers. Contact engineering for wall greater than 4 ft.

Always wear gloves when handling 4MAX™ Fiberglass Rebar to protect against fiberglass splinters. Avoid direct contact with skin. When cutting 4MAX™ Fiberglass Rebar, use a diamond blade for best results. Tie and chair 4MAX™ Fiberglass Rebar as you would steel rebar. Generally, minimum lap splice length of 24 inches unless otherwise specified by the engineer of record.

The information in this letter is valid until **12/31/2022** when it will be re-evaluated by TUF-N-LITE. Please visit mstbarusa.com for additional pertinent information. If you have questions or need further assistance regarding this matter, please contact TUF-N-LITE engineering at 925.750.0100

Sincerely,
TUF-N-LITE

COMPOSITE REBAR PRODUCTS



All MSTBAR Composite Rebar Products are ASTM D7957 Certified Building Materials. For more information on MSTBAR or other innovative products offered by TUF-N-LITE, give us a call at (513) 472-8400, or visit us on the web at www.mstbarusa.com

