



PREMIUM REINFORCEMENT

The #1 Solution for Concrete Reinforcement



Fiberglass Rebar

A Stronger, Lighter, Greener and More Durable Reinforcing Alternative to Steel

Manufactured by MST Rebar Inc.



A Paradigm Shift in Reinforcing Concrete

MST-BAR™ is a Glass Fiber Reinforced Polymer (GFRP) rebar. It is the only GFRP rebar that is an integrally ribbed maximum strength rebar. MST-BAR™ bonds to concrete exceptionally well. While steel rebar can oxidize in concrete, leading to potential rust and expansion, MST-BAR™ offers a durable alternative.

MST-BAR™ is 4x lighter than steel rebar, 3x stronger than steel rebar, does not conduct heat, cold, or electricity, substantially reduces workplace injuries, takes half the time to install with half the number of people, requires no maintenance or repairs, and lasts longer than the concrete it is reinforcing. Governments are specifying it, and the world is starting to realize that MST-BAR™ is the solution.

Flatwork Fiberglass Rebar



Structural Fiberglass Rebar

#6-20M Grade III 1000MPa - 60GPa ASTM-D7957 20M-VER 100

#7-22M GRADE III 1000MPa-60GPa ASTM-D7957 MST-BAR

#8-25M GRADE III 1000MPa -60GPa ASTM-D7957 VER 100

The Only Authentic Integrally Ribbed GFRP

MST Rebar Inc.'s specially engineered and designed Integral Rib mechanically locks MST-BAR™ into the concrete. Unlike other rebar (both steel and GFRP), the only way to pull it out of the concrete is to break the concrete itself.

There are many benefits to the Integral Rib. Not only are there fewer cracks with smaller crack widths, but you can also avoid 50% of traditional bent bar applications by using straight lengths of MST-BAR™. These applications include, but are not limited to, joining slabs, joining walls to floors, corners, anchoring, and reducing embedment lengths.

#3-10M GRADE III 1000MPa-60GPa ASTM D7957 MST-BAR



MST-BAR™ vs. Steel Rebar

1/4 THE WEIGHT OF STEEL



Get **4x the amount of product on your trucks** and save significantly on transportation costs. MST-BAR™ is also much easier to handle and use.

3x STRONGER IN TENSILE STRENGTH



With a **tensile strength of minimum 1000 MPa - 1200 MPa (145KSI-180KSI)** and **fatigue resistance 20x the amount of steel**, MST-BAR™ is the trusted solution for any project.



NON-CORROSIVE AND NON-CONDUCTIVE

MST-BAR™ is non-corrosive and **suitable for any environmental exposure**. It **does not conduct heat, cold, or electricity**.



GREENER SOLUTIONS

The manufacturing process and transportation of MST-BAR™ **produces far less carbon emissions** than steel.



MST-BAR™ is 100% Corrosion Resistant

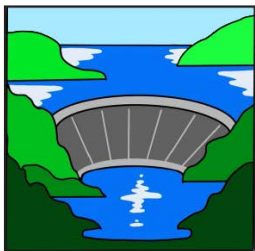
Steel rebar has been a foundational component in reinforcing concrete for over a century, helping construct countless enduring structures. While effective in many environments, steel rebar can face challenges such as corrosion, especially in harsh conditions, which can lead to significant maintenance costs over time.

MST-BAR™ offers a modern alternative, designed to address these challenges directly. Its non-corrosive nature ensures it can outlive the concrete it reinforces, making it a highly reliable choice for any project.

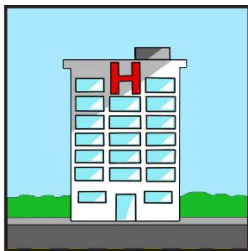


Applications

MST-BAR™ is suitable anywhere that steel rebar is used. It is especially beneficial to use in **coastal areas, near high voltage currents and near magnetic fields.** For example:



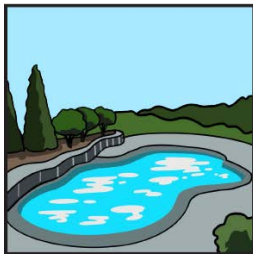
DAMS



BUILDINGS



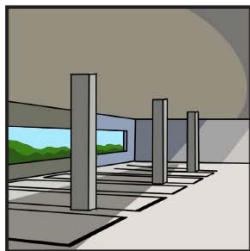
ROADS AND BRIDGES



POOLS AND PATIOS



PIERS



PARKING GARAGES

FLORIDA SEAWALL PROJECT



INSULATED CONCRETE FORM (ICF)



NON-STRUCTURAL PROJECTS



RETROFIT



ROADS & BRIDGES

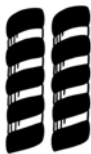


MST-BAR IN ACTION

Products

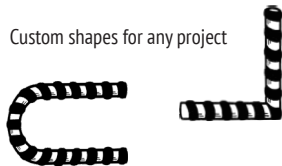
STRAIGHT BAR

- Structural and non-structural rebar
- Available in custom lengths (4ft - 60ft)
- Diameters in stock: 10mm - 25mm
- Custom diameters up to 55mm



BENT BAR

- Structural bent rebar
- Custom shapes for any project



EMAIL SALES@MSTBAR.COM FOR A QUOTE



QUALITY SERVICE

The dedicated, experienced and hard-working team at MST Rebar Inc. is committed to delivering quality MST-BAR™ products quickly and efficiently **anywhere in the world**. Whether its a warehouse or job-site destination, we are committed to ensuring that MST-BAR™ arrives where you need it **on time**. You can trust the team at MST Rebar Inc. to meet your needs.



Specs



MST-BAR® Grade III GFRP

PREMIUM REINFORCEMENT

IMPERIAL		#2	#3	#4	#5	#6	#7	#8	#9	#10	#11
METRIC		6	10	13	16	20	22	25	29	32	36
Minimum Tensile Load	kN	33	74	132	202	285	390	507	650	819	1000
	lbf	7419	16636	29675	45411	64070	87675	112180	146126	184118	224810
Cross Sectional Area	mm ²	32	71	132	201	285	387	491	645	819	1007
Weight	kg/m	0.12	0.22	0.35	0.5	0.7	0.9	1.22	1.4	1.72	2.15

Guaranteed Tensile Strength

>1000 MPa
>145 Ksi

Young's Modulus, E

>60GPa
>8702KSI

Ultimate Strain, ε_{fu}

>1.7%

Transverse Shear Strength, τ

>220 MPa
31.9 ksi

Bond Strength to Concrete

20 MPa Minimum
2900 Psi Minimum

Strength of Bend (Straight Portion)

>900 MPa

Strength of Bend (Bend Portion with Minimum Radius Bend : 4x Diameter of Bar)

>600 MPa

Young's Modulus, E (Bend Bar)

50 GPa

Glass Transition Temperature, T_g*

125C°

Compliance

USA:

- ACI 440.11-22
- ASTM D7957/D7957M-17
- AASHTO LRFD for GFRP-18
- ICC-ES AC454
- ICC-ES AC521
- Section 932-3 of Florida DOT

Canada:

- CAN/CSA S807-19
- CAN/CSA S806-12 (R2017)
- CAN/CSA S6-19
- MTO- 9.65.90
- SIMTReC Design Manual No. 3 (Version 2)
- SIMTRec Design Manual No. 5



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Join our community



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MST-BAR™ is Manufactured by MST Rebar Inc.