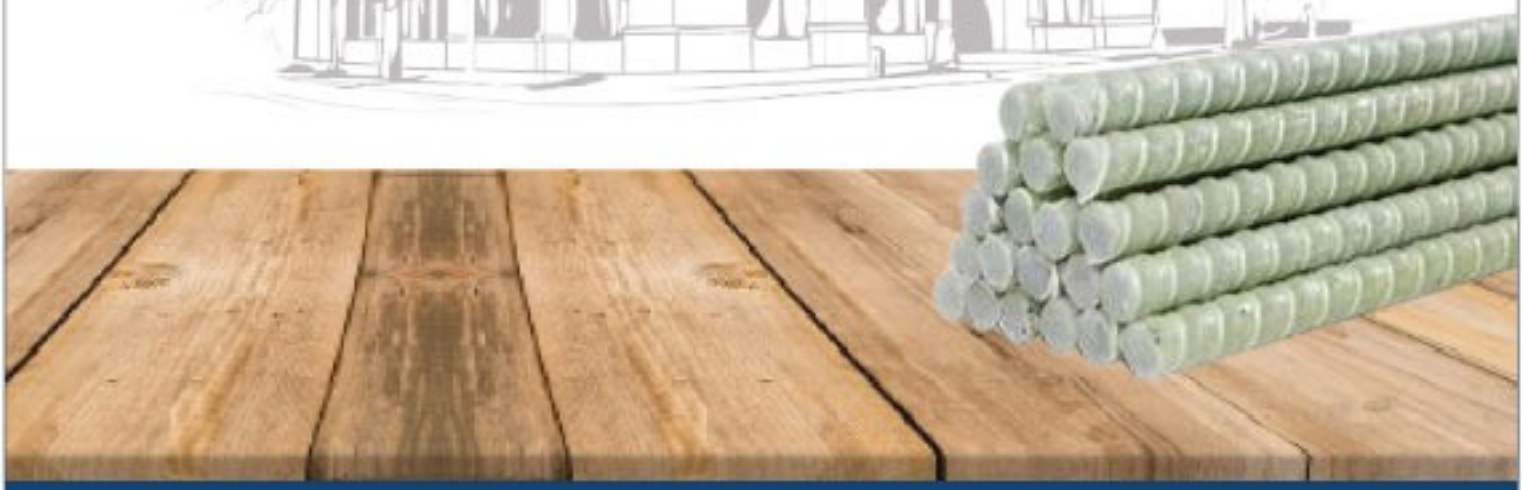
TET'S REBARX SOLUTIONS

GFRP REBAR MANUFACTURER

Next-Gen Reinforcement for Modern Infrastructure



ABOUT US

Rooted in Legacy, Driven by Innovation

At TET's RebarX Solutions, we are building the future on a foundation laid over four decades ago. Our story began in the world of plastics, where our family has been a trusted name in plastic waste trading for over 40 years. As a third-generation entrepreneur, I carry forward this proud legacy—specializing in trading and recycling of plastic materials like PP and HDPE scrap—with a strong commitment to sustainability and integrity.

In 2025, we expanded our vision with the launch of TET's RebarX Solutions, a dynamic venture focused on supplying Glass Fiber Reinforced Polymer (GFRP) bars—a cutting-edge alternative to traditional steel reinforcement in construction. With the same dedication that has defined our plastic business, we are now bringing corrosion-resistant, lightweight, and high-strength GFRP solutions to the Indian market.

OUR MISSION

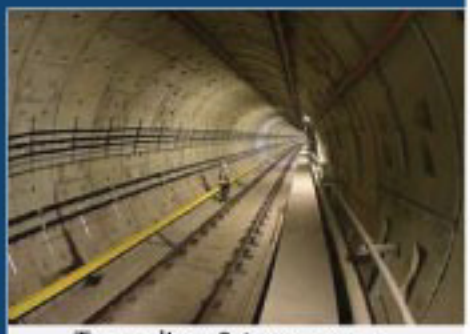
To deliver high-performance, sustainable construction materials while upholding our family's 40-year legacy in plastic waste trading.

OUR VISION

To be a trusted partner in infrastructure innovation and environmental responsibility through advanced material solutions and ethical business practices..

Approach slab

Hospital MRI areas



Tunneling & temporary reinforcement

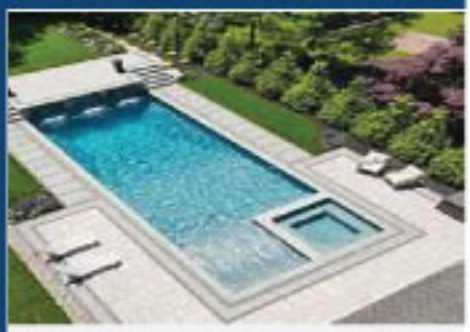
RCC floorings built in or close to the sea

Highway construction

Bridge decks

Barrier walls

Underground water tanks



Swimming pools

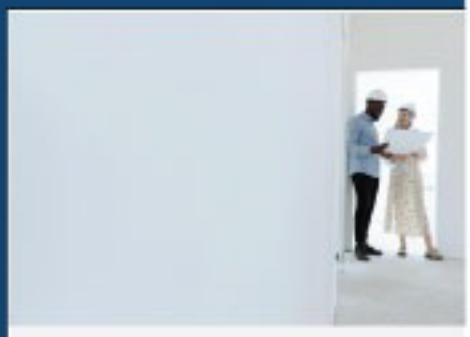
Columns

Water & waste water treatment plants

Dams, sea walls & marine applications

RCC roads

Foundations



Walls

Industrial Floorings

Friction Slab

Chemical plants

Concrete slabs

Pavements

Crash barriers

Parking's

Drainage

Precast

Tensile Strength

TET's rebarx GFRP rebars is known for its superior tensile strength. it is at least two timesstronger than conventional steel of the same diameter. this high tensilestrength allows the rebar to withstand pilling or streaming forces, increasing the strength of structures, enabling them to handle heavy loads. this strength advantage, along with its corrosion resistance, lightweight properties, and design versatility, make TET's rebarx gfrp rebar a compelling choice in the construction

Modulus of Elasticity

the modulus of elasticity, also known as young's modulus, is a measure of the stiffness os a material. for TET's rebarx gfrp (glass fiber reinforced polymer) rebar, the modulus of elasticity is significantly lower than that of steel.

specifically, the modulus of elasticity of gfrp rebar is around 55 gpa, compared to 160 gpa steel. this lower modulus of elasticity is often misunderstood as a disadvantage, but in fact, it can be beneficial in certain applications

for instance, in slabs on grade such as floors, parking lots, roads, and highways, the lower modulus of elasticity of gfrp rebar can be postivie attribute. it allows the concrete structure to flex more under load, which can help distribute stresses more evenly and reduce the risk of creacing. so, while gfrp rebar may have a lower modulus of elasticity than steel, this property can actually enhance its performance in certain applications.

Shear Strength

TET's rebarx gfrp (glass fiber reinforced polymer) rebar's shear strength is significantly influenced by the orientation of its reinforcing fibers withing the polymer matrix.

Durability

TET's rebarx gfrp rebar has impressive durability and longetive, even in harsh environmental conditions. here are some key points about its durability:

corrosion resistance: gfrp rebar is immune to corrosion , even in harsh environments with moisture, chemicals, or saltwater. this inherent corrosion resistance ensures that the structural integrity of the construction remains intact over time, reducing the risk of deterioration and the need for costly repairs or maintenance.

additionally, the reduced weight minimizes the overall dead load on the structure, making it particularly beneficial for projects with weight restrictions or seismic considerations.

Alkaline Resistance

TET's rebarx gfrp rebar hs superior resistance to a wide range of chemicals, including alkalis. this makes it highly resistant to corrosive environments, ensuring its long-term durability.

gfrp rebar is composed of high-strength glass fibers embedded in a polymer resinmatrix. it's ideal for apllications in harsh environments, such as marine structures and roadways exposed to de-icing salts.

this inherent resistance to chemical and environmental degradation ensures the long-term structural integrity of base slabs, minimizing the need for costly repairs and maintenance interventions throughout the lifespan of infrastucture projects. this makes gfrp rebar a promising alternative for enhancing the performance and sustainability of base slab construction.

YOUR ADVANTAGES WHEN USING FIBRE REINFORCED BROWNBAR IN YOUR CONSTRUCTION PROJECTS

Whole of Life Savings
GFRP rebar has a 100 year design life cycle with zero maintenance costs

High Tensile Strength
Stronger than steel

Corrosion Resistant
Exceptional resistance to water and salinity, Does not rust, leach or cause concrete cancer

Highly Chemical Resistant
Exceptionally resistant to a range of chemicals

Lightweight
GFRP rebar is ¼ the weight of stee

Low Environmental Impact
Consumes approximately 85% the embodied energy of steel

Highly Durable
Over 100 years retention of strength and modulus in high pH environments

Non-magnetic
No interference with sensitive equipment

Non-electromagnetic
Non-conductive and electro-magnetically neutral

Easy to cut & install
- Cuts easily using standard cutting tools,
- Faster to work with on-site,
- Bends delivered ready to place

Low Thermal Conductivity
- Maintains good thermal insulation values
- Promotes energy efficiency in buildings

No Thermal Cycling Impact
- Thermal expansion coefficient closer to concrete than steel
- Ideal for environments with extreme temperature cycles

FRP BENT BAR

TET's rebarx can't be bent on site like steel, hence, the TET's rebarx bend bar can be factory made according to ourmanufacturing process with client specifications, design & drawing,it will further save huge on-site labour cost and speed up the construction

ACTUAL APPLICATION PHOTOS

TMT / GFR

TECHNICAL COMPARISON

Properties of TMT Bars	TMT Bar	GFRP	Comparison
Tensile strength Mpa	500	1000	Stronger
Linear meter weight 8mm	0.395kg	0.080kg	Lighter
Bar's size 12m Until 100m	12m Until	100m	Better improvement
Durability embedded	50 years	(+)100 years	More durable
Class III and IV	(+/-)5 years	(+)100 years	More durable
Corrosion resistance	No	Yes	More durable
Electric conductivity	Yes	No	No accidents risk
No accidents risk	Yes	No	Does not dissipate heat
Concrete covering	35mm-45mm	20mm	Lower concrete volume
Shear strength	120	170	Higher
Bond strength Mpa / N / mm^2	14*	12.5	Lower
Compression Mpa / N / mm^2	500	450	Lower
Modulus of elasticity (Gpa)	160-200	65	Lower
Elongation (%)	25	4	Lower
Density (ton / m)	7.8	1.9	Lower

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