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DREAMBOAT
PARTNERS

GLASS FIBER REINFORCED REBAR

DREAMBOAT PARTNERS

We Build Future

ABOUT US
DREAMBOAT PARTNERS

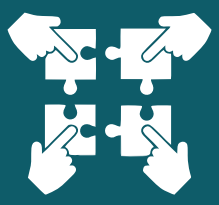
We Build Future

We Dreamboat Partners are leaders in application work related to composite materials. We take turnkey projects on Industrial and architectural applications. We are known for our strong technological capability, scalability and adaptability that are required to meet the constantly changing prerequisites of our clients.

Leveraging our industry expertise, stringent standards and driven workforce, we deliver unmatched services & best quality products. We are provider of innovative, cost-effective, and high-quality products through continued technological innovation and competent strategies.

Curious

We challenge the status quo for greater impact and innovation We listen and learn from one another's different skill sets and experiences We relentlessly pursue solutions that exceed customer expectations.



Collaborative

We work together in an open, transparent and respectful way We foster highly connected teams across the global enterprise We partner with our customers and other stakeholders to drive the best outcome.

Committed

We are accountable to deliver financial and operational results that outperform the market We empower our people to make decisions and act like owners We remain resilient to achieve our goals and best serve our purpose.

Mission

To deliver greater value, reliability, exceptional quality and economical solutions through consistent innovation. Our customer-centric performance driven performance & growth-oriented quality management techniques extend beyond the range of products to encompass a broader spectrum of services to meet the needs of our clients.

Vision

To develop architectural and industrial marvels in the world of composite materials through future upcoming technology and innovations.

We Deal in with

- GRC
- FRP Roofing Solutions
- GFRP Rebars
- Prefab Structures
- FRP Pultruded Profiles
- Glass Fiber Mesh & Fabrics

Turnkey Solution Provider

- Design
- Fabrication
- Manufacturing
- Insulations
- Complete Façade Executions

Why Us

DREAMBOAT PARTNERS

- 500+ Corporate Clients
- 5+ Years of Experience
- Composite Industry
- Best Quality Products
- Reliable & Secure Services
- Eco Friendly Process

GLASS FIBER REINFORCED REBAR

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GFRP INTRODUCTION

GFRP stands for Glass Reinforced Polymer, GRP rebar refers to a type of rebar made of glass fibers and resins. This material is used as an alternative to traditional rebar reinforcement in construction projects due to its several advantages such as reduced weight, increased corrosion resistance, and increased dimensional stability.

GRP REBAR Composite Rebar is used in aquatic concrete structures such as transportation infrastructure, rail LRT, runways, IT and research facilities, mining and tunneling, buildings, retaining walls, dams, power stations, etc. Glass fiber reinforcement is highly resistant to corrosion and can significantly extend the life of concrete structures. Steel is used in structures such as buildings, tunnels, and waterfront concrete.

Climate and chloride exposure create significant corrosion problems. Governments, designers, and building owners face enormous costs to repair dangerous failures.

GFRP ADVANTAGES

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STRONGER

GRP rebar is 1/4 lighter than steel and twice as strong as steel. More durable and cheaper than steel. Glass fiber rebar has high tensile strength, more than twice as strong as conventional steel of the same diameter. This allows consumers to replace steel diameters with smaller diameter bars in some cases without sacrificing performance.

2x The Life

GRP's components contain high-quality, corrosion-resistant vinyl ester resins that extend the life of concrete structures.

- Can be made with custom lengths, bends, and shapes.
- Durability is a big factor when deciding between composite rebar and rebar. If the rebar is 100%corrosion free and has more than double the lifespan of steel rebar, this is a winner and a top choice.

4x Lighter

- Transparent to electric fields and radio frequencies.
- Low thermal conductivity.
- This bar has a much higher lateral coefficient of thermal expansion than steel.
- Fiberglass rebar has a density of only 1.9 tons/cubic meter, so our rebar is about four times lighter than conventional rebar. This means that handling, transportation, and overall experience in the field are greatly simplified.

Easy installation

GFRP rebar is easier to cut and bend than steel, making it easier to install. This can help to reduce the installation time and cost of construction projects.

Better dimensional stability

Unlike steel, which can expand and contract with changes in temperature, GFRP rebar maintains its dimensions even in extreme temperatures, making it suitable for use in areas with large temperature swings.

Overall, GFRP rebar provides a high-performance, low-maintenance reinforcement solution that can help to improve the durability, sustainability, and efficiency of construction projects.

APPLICATIONS OF GFRP

GFRP rebar is commonly used in applications where traditional steel reinforcement is not suitable, such as in harsh environments or areas where there is a risk of corrosion. The material is also often used in high-stress applications, as it has a high tensile strength and is able to withstand high levels of stress and strain.

Transportation

Tunnels

Building Structures

Retaining Walls

APPLICATIONS OF GFRP

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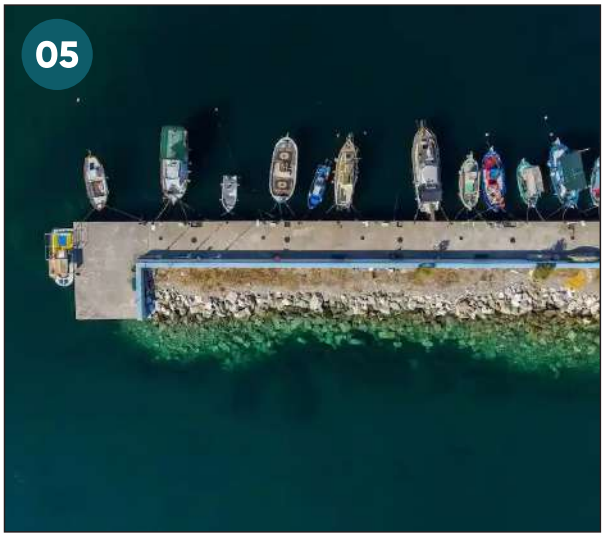
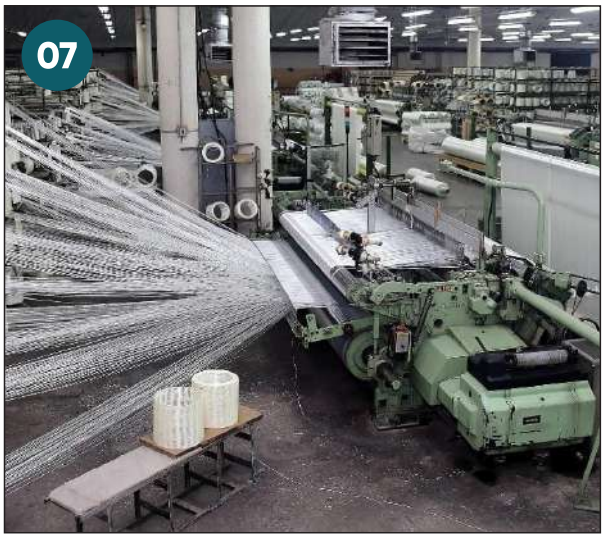


Marine Applications

Water Treatment



Industrial Applications

Civil Engineering Work

Architectural Concrete

Mining

APPLICATIONS OF GFRP

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GFRP FAQ'S

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1) What is the difference between GFRP and FRP rebar?
Ans. GFRP stands for Glass Fiber-Reinforced Polymer is one of the best Rebar used for constructions, FRP stands for Fibre Reinforced Polymer which includes basalt (BFRP) and carbon (CFRP),

2) How is the composite reinforcement better than Metal? What are the advantages of composite reinforcement in comparison with traditional metal rebars?
Ans. **Strength –** composite reinforcement has Strength characteristics 2-3 times superior characteristics of steel reinforcement Indian standard for breaking

Durability – the coefficient of temperature expansion of composite reinforcement is close to the coefficient of thermal expansion of concrete, so that in the concrete structure there are no associated micro-deformations, micro-cracks and the overall durability of the structure is substantially increased.

Chemical resistance – composite reinforcement has great chemical resistance in various aggressive environments, it is not susceptible to corrosion, which also positively affects the durability.

Light weight – fiberglass reinforcement with comparable strength characteristics is lighter than steel reinforcement in 9 times.

Low thermal conductivity – due to low thermal Conductivity "temperature bridges" are not formed in the structure which reduces the thennal Loss to 34% and, accordingly, the conditioning costs of the building.

Easy installation – reinforcing bars can be cut from the bay Of any given Length, fasten with plastic clips, special fasteners-clamps or just a binding wire.

Easy transportation and storage – you fold the armature into coils, which allows you to use even cars for transportation and save significantly at the same time.

3) How does GFRP Rebars work during an earthquake?
Ans. Due to higher fatigue properties, GFRP rebars have higher resistance to cyclical Loads of high intensity, which makes Dreamboat rebars workable during earthquakes

4) Is it possible to use composite reinforcement for pile reinforcement?
Ans. Yes, moreover, the corrosion resistance of composite piles is substantially higher than that of steel reinforced concrete piles.

5) How does its strength depend on the ambient temperature?
Ans. The change in the ambient temperature on the strength of composite reinforcement is practically unaffected. It can be used at temperatures from -70 to +120 degrees Celsius.

6) How to mount (install) the rebar?
Ans. Mounting of composite reinforcement is made in the same way as metal. But thanks to the low weight of fiberglass reinforcement, it is possible to mount the rods with plastic clips, and not just a tie wire

7) What is the binding of the composite reinforcement?
Ans. Plastic clips or knitting wire, and also with the help of special plastic fix-clips. Faster and cheaper – plastic ones

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GFRP TECHNICAL CHARTS

COMPARISON CHART

Material	Steel	GFRP
Material	500	1000+
Tensile Strength(Mpa)/N/mm^2	120	170
Shear Strength	14*	12.5
Bond Strength(Mpa)/N/mm^2	500	450
Compression(Mpa)/N/mm^2	160-200	65
Elongation(%)	25	4
Durability	Terms prescribed in building code	Not Less than 80 years
Density(Ton/m^3)	7.8	1.9
Corrosion Resistance	Appearance of rust products	1.9
Ecologically Compatibility	Friendly Material	Does not emit harmful and toxic substance
Electrical Conductivity	Electrically Conductive	Dielectric

STEEL TMT BAR

Weight (12 meter bar)	Diameter
2.75 kg	Ø 6
4.74 kg	Ø 8
7.40 kg	Ø 10
10.65 kg	Ø 12
14.25 kg	Ø 14
18.93 kg	Ø 16
24.00 kg	Ø 18
35.76 kg	Ø 20
46.22 kg	Ø 22
58.02 kg	Ø 25
75.79 kg	Ø 32

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GFRP BAR

Weight (12 meter bar)	Diameter
0.46 kg	Ø 4.5
0.57 kg	Ø 6
0.94 kg	Ø 7
1.23 kg	Ø 8
1.65 kg	Ø 10
2.48 kg	Ø 12
3.24 kg	Ø 14
4.87 kg	Ø 16
6.28 kg	Ø 18
8.08 kg	Ø 20
9.80 kg	Ø 22

SECTORS


REAL ESTATE


INFRASTRUCTURE


RESIDENCE & COMMERCIAL COMPLEX


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COLLEGE


RAILWAY STATIONS


HOSPITAL


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MARINE


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HOTELS


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PORTS


GOVERNMENT ORGANIZATIONS


COMMERCIAL COMPLEX


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AUTOMOBILE


HVAC DUCT


CONSTRUCTION


FILTERATION

CONTACT US

+91 99209 79934
+91 70161 10752

dreamboatpartners@gmail.com

Horizon Heights , Shop no A 113, Near new SMC bhavan, Opp Hanuman Mandir, 66kv Road , Amli, Silvassa UT of DNH&DD 396230

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Our Partnership Your Solution