

The Future of Construction

Composite Reinforced Polymers



terratech

www.terratecheg.com

**Sustainable
and Green
Building
Materials**

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About Company

• Who We Are

TERRA TECH is a pioneering force and industry leader in advanced composite products and reinforced rebars, specializing in sustainable, high-tech reinforcement solutions that redefine the future of construction.

• Manufacturing Excellence

We produce premium GFRP (Glass Fiber) and BFRP (Basalt Fiber) rebars, with diameters ranging from 6 mm to 40 mm, ensuring high precision and structural efficiency.

• Technology Provider

Beyond production, TERRA TECH designs and manufactures its own advanced, high-tech production lines for composite-reinforced polymers.

• Quality Commitment

All our products strictly comply with the highest international standards, delivering superior physical, chemical, and mechanical properties that meet elite market demands.

• Innovation & Global Reach

Powered by a dedicated R&D team, we continuously enhance our product lines and stand fully equipped to export our high-performance solutions worldwide.



CEO Message



We deeply believe that advanced local manufacturing and continuous R&D are the real drivers of our nation's progress. That is why at TERRA TECH, we don't just deliver premium composite solutions; we are fully dedicated to transferring knowledge and training new generations, promising to localize the latest innovative technologies to improve human life and build a sustainable future for all. We take every step because we're committed to shaping the future of smart, green construction and leaving a lasting green footprint.

A. Halim Youssef

MISSION

Our mission is to lead the manufacturing and adoption of advanced composite materials, delivering top-tier quality, unmatched performance, and real value to our clients, while actively shaping a greener and more sustainable future for global construction and infrastructure.

VISION

Our vision is to be the global leader in transforming the construction industry through innovative, high-performance, and sustainable composite materials, setting new benchmarks for excellence and environmental responsibility worldwide.



Company History

TERRA TECH is a pioneering and innovative company in Egypt and across the entire African continent, specializing in the production of Composite Reinforcing Polymers. We excel in manufacturing Glass Fiber and Basalt Fiber products, leveraging cutting-edge and innovative technologies

Established in 2020 as an Egyptian Limited Liability Company (L.L.C.), and despite its young age, TERRA TECH has quickly and strongly cemented its position, becoming the market leader in composite reinforcement materials.

This rapid success is driven by our team of highly competent professionals, who are committed to providing the highest quality products and unwavering support to our customers. Recognizing the significance of the composite reinforcement sector in the building materials market, we proactively adapt to all dynamic industry trends and developments.

TERRA TECH has further enhanced its presence by participating in numerous international conferences and exhibitions, successfully capturing the attention of major companies across both African and Arab countries.

Certificates and awards in year 2024 - 2025 including :

- **National and International Certification:** The company holds global ISO certifications and the national quality mark, "Proudly Made in Egypt" , granted by the Industrial Modernisation Centre (IMC).
- **Green Leadership and Innovation:** Secured 1st place in the Medium Project category of the National Initiative for Smart Green Projects
- **Global and Institutional Recognition:** The company participated in the COP29 Climate Conference in Azerbaijan and won the Winner's Award following a nomination from the General Investment Authority (GAFI).
- **Research Presence:** Enhanced its technical presence by participating in major events such as the Housing & Building National Research Center International Conference (GSSB 2024).



What we Produce?

TERRA TECH specializes in manufacturing Glass Fiber Reinforced Polymers (GFRP), advanced alternatives to traditional steel rebars. We offer a full range of diameters from 6 mm to 40 mm and provide custom-length rebars to meet precise engineering specifications and unique project design requirements.



Glass Fiber Reinforced Polymers

Composite reinforced polymers are commonly referred to as Glass Fiber Reinforced Polymers (GFRP) or Fiberglass Reinforced Polymers (FRP).

Terra Tech guarantees the production of these composites in full compliance with recognized international standards, including GOST and ASTM.

Supply Formats and Diameters:

- **Coil Format:** Smaller diameters (6–12 mm) are supplied in coils of 50 or 100 meters.
- **Rod Format:** Larger diameters (14–40 mm) are available in straight rods, typically 6–12 meters long.

Basalt Fiber Reinforced Polymers

Basalt rebars, known for being significantly lighter than steel, offer major advantages in installation and transportation. They are also one of the most reliable options for structural applications where corrosion resistance is essential.



GFRP / BFRP Meshes

These reinforcement meshes are engineered to strengthen road and highway overlays by reducing reflective cracking caused by traffic loads, aging, and temperature cycles. This enhancement significantly increases pavement durability and extends maintenance intervals.



Production Lines

The 4-SR processing line is engineered for manufacturing composite rebars using glass or basalt fiber roving, ensuring consistent quality and high production efficiency.



Why should we replace steel

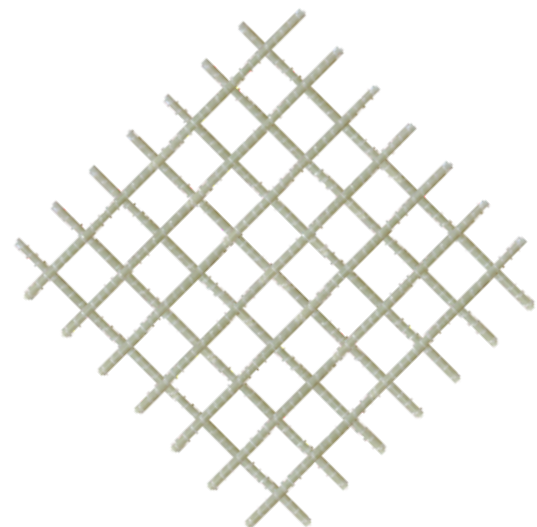
Why Replace Steel Reinforcement with Glass Fiber Reinforced Polymer (GFRP)?

Replacing steel reinforcement and mesh with composite alternatives can achieve 20–35% economic savings in structures suitable for GFRP application. These savings result from the high tensile strength of composite materials—2 to 3 times higher than steel—allowing the use of smaller-diameter GFRP bars while maintaining equivalent load-carrying capacity.

This provides substantial cost efficiency, primarily through material replacement.

Additional Factors Enhancing Construction Cost Efficiency

- Reduced logistical costs due to the lightweight nature of composite reinforcement and the ability to package products compactly in coils, lowering transportation and unloading expenses.
- Faster installation speeds, which reduce labor costs.
- Adjustable lengths enable waste-free installation, further improving overall cost-effectiveness.



GFRP Advantages & Technical Specifications

1

HIGH TENSILE STRENGTH

- Reaches up to 1350 MPa, outperforming traditional steel bars.

2

NO CORROSION

- High resistance to water, alkaline, and acidic solutions.

3

LIGHT WEIGHT

- 8 times lighter than steel due to low specific gravity.

4

Matching Expansion Coefficient

- Thermally expands like concrete to prevent foundation cracks.

5

DIELECTRIC

- Non-conductive and perfectly safe for electrical insulation.

6

RADIO TRANSPARENCY

- Transparent to electromagnetic waves with zero signal interference.

7

Economical Cost

- Saves up to 35% when using equivalent strength diameters.

8

DURABILITY

- Offers a much longer service life in concrete than steel.

9

CHEAPER TRANSPORTATION:

- Lightweight and coilable, significantly reducing transport costs.

10

ECO-FRIENDLY PRODUCTION

- Zero carbon emissions during manufacturing.

11

SEISMICALLY STABLE

- Retains technical properties during earthquakes, ideal for SOG applications.

12

WASTE-FREE & EFFICIENT

- Delivered in 50–100m coils and cut to size, saving up to 5% of material.



Quality control

- **Superior Tensile Strength:** 3x stronger than steel rebars.
- **Premium Materials:** Made using high-quality glass fiber roving.
- **Pre-Production Testing:** Tensile properties are tested before using any raw materials.
- **Strict Quality Control:** All incoming materials are lab-tested in specialized centers.
- **EGAC Certified:** Certified to manufacture and sell composite rebars for civil, industrial, and road construction.

(ISO 2015 - 9001), (ISO 2015 - 14001), (ISO 2018 - 45001),

Proudly Made in Egypt EG



Implemented Projects

- **Yacht Marina Project – Suez Canal General Authority – Canal Company for Ports and Major Projects.**
 - **Construction of factory floors and warehouses – Kernell Trade and Export Company – Alef District, Fifth Settlement.**
 - **Trade Bird Organizations Company – Makram Ebeid – Eng. Nasr.**
 - **Heaven Beach Village Project – West Gulf Urban Development Company – Ain Sokhna.**
 - **Group of villas – Gloria Compound – Sheikh Zayed.**
 - **Villas in multiple North Coast villages – swimming pools, corridors, and landscaping.**
 - **Special projects including villas and garages.**
 - **Nubaria Farms – West Minya Farms – Assiut Farm – fish ponds and farms in Kafr El-Sheikh, Borg El Arab, Rashid.**
 - **Industrial zone factories – El Minya Governorate.**
 - **Emirates Misr car gas station – New Damietta.**
 - **New Cairo – Mostakbale City.**
 - **The New Delta Project (The New Hamam Canal & Water Treatment Plant Track).**
 - **Municipal Solid Waste Recycling Plant Project – Mohit Construction Company – Shabramant, Giza**
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Some of Projects Images



• **Yacht Marina Project**
Suez Canal General Authority
Canal Company for Ports and
Major Projects



• **Construction of factory floors
and warehouses for Kernell Trade
and Export Company Alef District
- Fifth Settlement.**



• **Heaven Beach Village Project**
West Gulf Urban Development
Ain Sokhna.



• **Trade Bird Organizations Company**
Makram Ebeid - Nasr city.



- **A group of factories in the industrial zone in Assiut**



- **Villas - multiple villages on the North Coast - swimming pools - corridors - landscape.**



- **TAQA Gas station Beni Suef**



- **Mobil Gas station Beni Suef**



- **The New Delta Project (The New Hamam Canal): supplying and reinforcing water canals and structures.**

OUR VALUED SUCCESS PARTNERS



Al Karama Co.
شركة الكرامة

International Exhibitions and Conferences



IATF Exhibition



Egypt Projects Exhibition



Cop 29



IMC 3 Exhibition



international conference
Smart Green Sustainable
Building



Higher Committee Meeting for
The Integrated Industrial Partnership
for Sustainable Economic Development

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THANK YOU



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SMART GREEN
PROJECTS
المبادرة الوطنية
لمشروعات الخضراء الذكية

