

The Future of Construction

Composite Reinforced Polymers



**Sustainable
and Green
Building
Materials**

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About Company

- **TERRA TECH** is a pioneering force in the technology of manufacturing composite products using in the construction and building, leading the way in innovation and sustainability. We driving forward advancements that redefine the future of the industry.
- **TERRA TECH** producing **GFRP / BFRP** from 6 mm - 40 mm according to the highest quality rules and international standerds
- **TERRA TECH** manufactring advanced and Hi-Tech production lines for composite reinforced polymers .
- **TERRA TECH** has a dedicated research and development team working all time to develop products and production lines
- **THE DEMAND** for rebar is becoming more selective from year to year, thus making manufacturers of reinforcement develop their products with better physical, chemical and mechanical properties.
- **TERRA TECH** can exporting glass fiber and basalt fiber reinforcement polymers to all countries



CEO Message



We have concluded, after many scientific studies, that local production and manufacturing is one of the most important ways of development, and that continuous research and development is the basis of sustainable development. For that, we strive with all our efforts to transfer the technology of education, vocational and technical training. We are working on continuous development in the industry and the localization of advanced industries and innovative technological solutions with the aim of improving human life and achieving sustainable development goals

A. Halim Yururt

MISSION

To pioneer the development and adoption of advanced composite construction materials, delivering superior quality, performance, and value to our customers while promoting a greener, more sustainable future for construction projects globally.

VISION

To lead the way in transforming the construction industry through innovative and sustainable composite materials, driving excellence and environmental responsibility worldwide.



Company History

TERRA TECH is A pioneer company in Egypt and all Africa that produce composite reinforcing polymers , we manufacture of Glass Fiber and Basalt Fiber products is based on applying innovative technologies, our company is L.L.C Egyptian company founded in the market at 2020 .

Though the company is quite young, it has taken a strong position on the market of products made of composite reinforcing materials.

within a short time our company was able to take the leading position in the market of composite reinforcement. our professionals who are self-confident and always strive to provide high-quality assistance to our customers.

Production of composite reinforcement is a significant part of the market of building materials and so it is going through all the trends related to the dynamics of this industry.

TERR TECH participated in many international conferences and exhibitions and gained the attention of many companies in African and Arab countries.

Certificates and awards in year 2024 including :

- The company certified in ISO certificates
- The company win the 1st place in National initiative for smart green projects in medium project
- The company participated in the COP29 climate conference in Azerbaijan
- The company won the winner's award with a nomination from the General Investment Authority
- Housing & Building National Research Center International Conference (GSSB 2024)



What we Produce?

TERRA TECH manufacturing glass fiber reinforced polymers with all diameters (6mm-40mm), we can provide the rebar with the required lengths according to the design and projects requirements .



Glass Fiber Reinforced Polymers

COMPOSITE reinforced polymers are called by several names, including (GFRP) Glass fiber reinforced polymers - (FRP) fiberglass reinforced polymers

COMPOSITE reinforced polymers are manufactured by Terra Tech according to (GOST) and (ASTM) standard specifications.

TERRA TECH provide rebars in coils in 50 and 100 long meter (diameter 6 mm - 12 mm) and can supply the deameters from (14 mm - 40 mm) in rods (6m - 12 m)

Basalt Fiber Reinforced Polymers

Basalt rebars, which stand out with their lightness compared to steel rebars, have great advantages in terms of installation and transportation, and are the best option to be used in structures against the risk of corrosion.



GFRP / BFRP Meshes

reinforcing mesh is designed for reinforcing road and highway overlays to prolong the pavement lifespan by reducing the effects of reflective cracking caused by traffic loading, age hardening and temperature cycling. Pavement life between maintenance can be prolonged significantly.



Production Lines

The 4-SR processing line is designed for the production of composite rebar made of glass or basalt fibers roving



Why should we replace steel reinforcement with Glass Fiber Reinforced Polymer?

The economic efficiency of replacing steel reinforcement and mesh with composite alternatives in structures where composite reinforcement can be precisely used ranges from 20 to 35%. Such savings are achieved due to the high strength properties of the composite material, which are 3-2 times higher compared to steel, resulting in an equal strength replacement of steel reinforcement with composite—of smaller diameter with similar strength characteristics in tension.

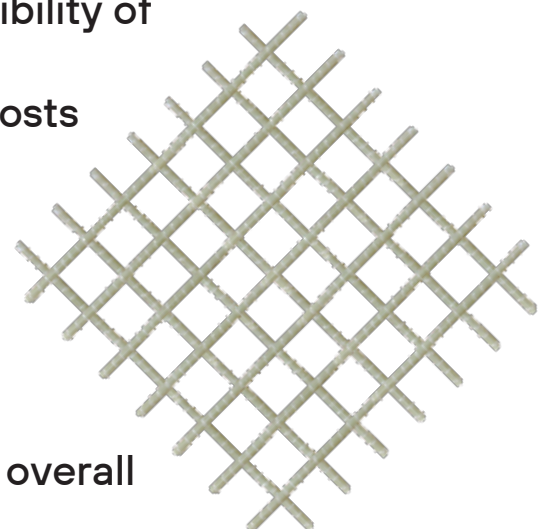
Therefore, this represents significant economic efficiency, primarily in replacing the material itself.

In addition to this, significant factors contributing to further cost reduction in construction are:

Minimization of logistical costs due to the lightweight nature of composite reinforcement, the possibility of compact packaging of products into coils, and consequently, reducing transportation costs and unloading expenses.

Increased speed of installation works, thus reducing labor costs.

Adaptive lengths contribute to a waste-free installation, serving as an additional factor in overall cost-effectiveness.



GFRP Advantages & Technical Specifications

1

HIGH TENSILE STRENGTH

- GlassFiber is stronger than traditional steel bars in tensile strength and reach up 1350 MPa

3

LIGHT WEIGHT

- Low specific gravity, the weight of fiberglass reinforcement is up to 8 times less than that of a metal.

5

DIELECTRIC

- non - conducting electricity and safe, It is advisable to use where the use of dielectrics is required.

7

Cosat Economicaly

- When replacing metal reinforcement with fiberglass reinforcement of the same diameter, the estimated cost is significantly reduced. When replacing with equal strength - with reinforcement of a different diameter, but with the same tensile strength - the savings reach up to 35 %.

2

NO CORROSION

- High corrosion resistance fiberglass is resistant to aqueous, alkaline and acid solutions, which guarantees the durability of the structures being constructed.

4

EXPANSION COEFFICIENT SIMILAR TO CONCRETE

- The temperature expansion of fiberglass is on the same level as concrete, which completely eliminates the formation of cracks in the foundation.

6

RADIO TRANSPARENCY

- Fiberglass does not interfere with radio waves and electromagnetic waves

8

DURABILITY

- The service life of fiberglass reinforcement in concrete is more durable than steel

9

Cost Economicaly

- When replacing metal reinforcement with fiberglass reinforcement of the same diameter, the estimated cost is significantly reduced. When replacing with equal strength - with reinforcement of a different diameter, but with the same tensile strength - the savings reach up to 35 %.

10

- eco-friendly, at production of composite reinforcement no carbon dioxide is emitted

11

TRANSPORTATION is CHEAPER

- Due to light weight and coiling the glass fiber the cost of transportation is very cheap

12

- It is steady against seismological activity of the earth, Fiber reinforcement do not lose its main technical Characteristics even at the earthquake, so it is the best choice for reinforcing of concrete in the (SOG).

13

- waste-free since it is delivered in coils of 50/100 running meters and it is cut into necessary size, it allows to Save up to 5% of the total amount of reinforcement.



Quality control

Quality Control of Products Manufactured It is recognized that the major characteristic of composite rebar is tearing properties, and by this parameter the composite rebar is three times better than metal rebar.

The tearing properties of the finished product are based on using the roving in the production process for manufacturing composite rebar.

we test tearing properties first of all before using certain raw materials in production.

All raw materials that arrive at our Company passes quality control on the basis of the laboratory and research centers that specialist in same fields.

Terra tech Certified from Ejac in Design, development, Manufacturing and sale of composite polymer products intended for reinforcement of building structures and elements in civil, industrial, road construction.

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



Implemented Projects

- 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.
- 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 - multiple villages on the North Coast - swimming pools - corridors - landscape.
- Special projects, villas and garages.
- Nubaria Farms - West Minya Farms - Farm in Assiut
- Fish ponds and farms, Kafr El-Sheikh - Borg El Arab - Rashid
- A group of factories in the industrial zone in El Minya Governorate
- "Emirates Misr" car Gas station, New Damietta
- New cairo , Mostakbale city

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.

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



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



- **Mobil Gas station**
Beni Suef



- **TAQA Gas station**
Beni Suef



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