

GEOSYNTHETICS IN CIVIL ENGINEERING

A GUIDE TO SLOPE PROTECTION

geotech[®] Technology is widely adopted for Subgrade Stabilisation and Pavement Optimisation to improve the structural performance of paved roads and unbound roads and platforms.

Also adopted for Earth Retaining Systems for cost effectiveness and versatility over other traditional methods.

By delivering real savings in cost and time, **geotech** Technology can help you improve the bottom line on your project as well as preserving the invested capital.

Tensar[®]
AGENT


betterground[®]
AGENT




geotech[®]

THE COMPANY YOU CAN BUILD ON

OVERVIEW



For Over 5 Years, **geotech** has Provided Economical Solutions to Common Infrastructure and Site Development Needs

OUR INTERNATIONAL LEADERS

We are the agent of Tensar International Limited (Tensar), Betterground (Engineered Ground Improvement) and OMS for Pile Driving Equipment.

INNOVATIVE, BEST VALUE SOLUTIONS IN HUNDREDS OF APPLICATIONS

geotech's high-performance range of innovative geogrids has been continuously developed since being introduced in Egypt as the first geosynthetic products of their type. The outstanding performance of **geotech**[®] geogrids and geotextiles has benefited many of road, rail, runway, embankment and many other applications across Egypt provinces.

PARTNERSHIP FOR SUCCESS

Many **geotech** products and systems can provide cost-effective, timesaving and lasting solutions to widely encountered civil engineering problems. **geotech**'s range of support services is an integral part of every project partnership. Our team of design and applications engineers can work with you from the outset to ensure that our products, systems and designs are tailored to your exact requirements, to help you achieve your project objectives on time and to budget.



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ABOUT US

geotech is a local leader and expert in technology driven solutions for soil reinforcement and ground stabilisation.

geotech supplies geogrid, geotextile and blocks products to provide practical solutions for poor soil conditions affecting the cost of roads, railways and paved areas. Also The Company offers products for earth retaining walls and slopes, subgrade improvement and stabilisation, foundations, reinforcement of asphalt to extend pavement life and Corrosion Protection products for soil slopes and waterways.



Our team of design and applications engineers can work with you from the outset to ensure that our products, systems and designs are tailored to your exact requirements, to help you achieve your project objectives on time and to budget.

We help customers find the right ground improvement solution for their projects from an early point in the design stage. We assist in the design of favorable solutions, including stability calculations, liquefaction mitigation assessments, settlement estimations and optimization of methods as well as custom

equipment design for dedicated applications. We have over 5 years' experience in manufacturing, developing and designing innovative, sustainable construction solutions as an alternative to traditional methods.



THE COMPANY YOU CAN BUILD ON



WE ARE THE AGENT OF

01 TENSAR

Tensar is a worldwide leader in the manufacture and the provision of products and systems for subgrade stabilisation, pavement optimisation and soil reinforcement. Their expertise and experience has been accumulated over several decades of successful collaboration in projects internationally.

03 OMS

OMS is a world brand in the production of vibratory pile driving equipment, with its products performing in all conditions around the globe.

02 BETTERGROUND

Betterground enables construction companies to build up a sustainable business in the field of ground improvement utilizing the best equipment in the world, competent services and professional expertise, including equipment repairs, online spare part purchasing, site quality control, method optimization and geotechnical design and supervision.



OUR MISSION

The following points clarify how we seek for itself to be the better organization internally and externally to be an active member for the local and international community.

EMPLOYEES

We motivate our staff by creating a better work environment to allow them to show their best and to be creative at work, which affects us by a positive return for them and for the company.

CLIENTS

We achieve to meet and exceed our client's expectations about our projects.

THE COMPANY

We are effective and hard workers in our project to deliver the project in time with high quality to meet our clients' expectations.

OUR VISION

To become the number one construction development company in Egypt. To be the world's premier engineering, construction, and project management organization by achieving special results for our customers, building satisfying careers for our people, and earning a fair return on the value we deliver.

Teamwork and diversity work together to help us drive our performance to the highest levels. We hold each other accountable and we make fact-based decisions driving to the right decisions in a timely manner. Continuous innovation drives our results, we must drive many ideas through our funnel using the „fail fast - fail cheap - fail forward“ methodology, this includes products, services and/or business models.

WE VALUE

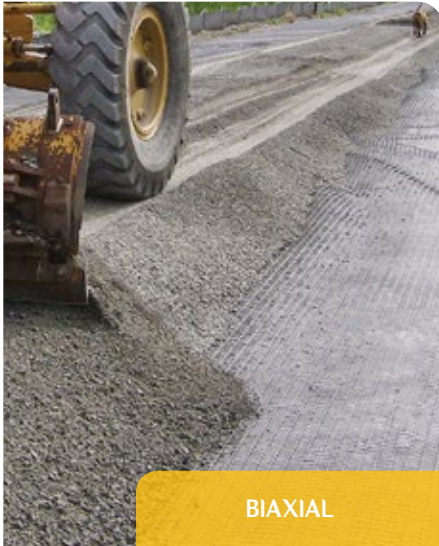
The health and safety of our employees is our most critical obligation and the job of everyone at Tensar. Our integrity is paramount, people are treated fairly and openly/transparently and all people's opinions are respected.



SYSTEMS & PRODUCTS



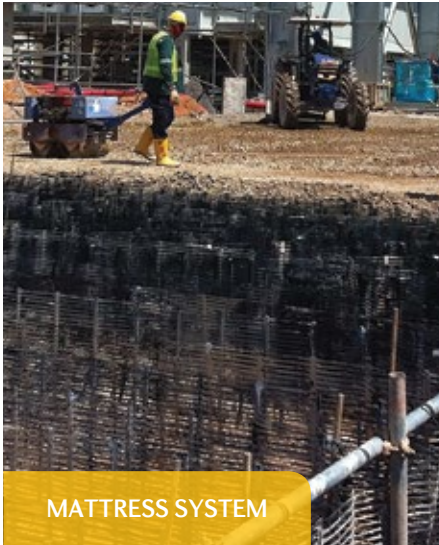
TRIAx



BIAxIAL



UNIAxIAL



MATTRESS SYSTEM



GLASSTEX



BASETEX



TRITON SYSTEM



MINEX



GEOCELL





OUR APPLICATIONS



EARTH RETAINING WALLS

A composite structure consisting of alternating layers of compacted backfill and soil reinforcement elements, fixed to a wall facing.



SLOPE PROTECTION

Geocell system improves resistance to erosive forces on steep, unstable, or slopes exposed to severe hydraulic or mechanical stresses



WORKING PLATFORMS

If you're using a mobile crane, piling rig or other heavy plant on a construction site—particularly where the ground is weak or unstable—having a safe working platform is vital.



ASPHALT REINFORCEMENT

Aims to reduce reflective cracking in asphalt surfacing over cracked substrates such as joints in underlying concrete slabs or cracks in cement-bound base layers or existing asphalt layers, plus those induced by thermal movement of substrates and traffic-induced shearing.



COASTAL PROTECTION

Due to the destructive power of waves, tides and currents, often combined with the requirements for a solution sensitive to the natural environment, few locations present more construction challenges than the coast.

OUR SERVICES

Soil reinforcement & Ground stabilization

In almost any sort of construction project, working on weak or variable ground usually presents considerable challenges for soil stabilization. But Tensar's technology and know-how in ground stabilization not only improves performance, but is proven to reduce costs and environmental impact of subgrade improvement too.

Soil improvement

Increase the load-bearing capacity and/or the shear strength.
Reduce both absolute and differential settlements or in certain cases, accelerate them.
To mitigate or remove the risk of liquefaction in the event of an earthquake or major vibrations.



PROBLEM STATEMENT

EXTENSIVE EROSION



PROBLEM STATEMENT

RILLS UNDER WALL BASE



PROBLEM STATEMENT

RILLS UNDER FENCES



PROBLEM STATEMENT

ERODED SOIL COVERING THE ROAD



PROBLEM STATEMENT

SINKING IN THE SAND (EVEN 4X4 VEHICLES)





THE SOLUTION SLOPE PROTECTION

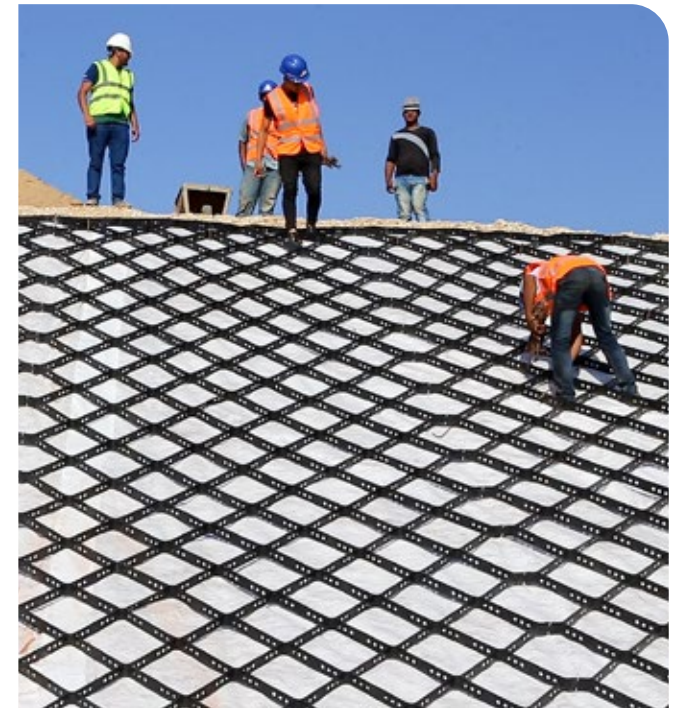
geotech geocell panels are available in varying widths for effective project design. Capable of withstanding rugged terrain and conditions, the 3.0" high units can be stacked to create self-supporting walls and filled with sand, stone, mulch or other materials.

Low profile **geotech** geocell panels provide the stability needed for slope protection, channel reinforcement and load support. The panels are easy to install and can be filled with a variety of infill materials, including native soils and recycled aggregate, to reduce waste material and overall construction costs.

The cellular structure of the **geotech** geocell system improves resistance to erosive forces on steep, unstable slopes exposed to severe hydraulic or mechanical depths.

The benefits

- Cost efficient and project effective
- Lightweight, durable and easy to install
- UV stabilized for two years, longer if covered
- Patch, reinforce or replace for easy repair
- Available in multiple sizes



MATERIAL



**EASY TO STORE
WAREHOUSING
& TRANSPORTING**



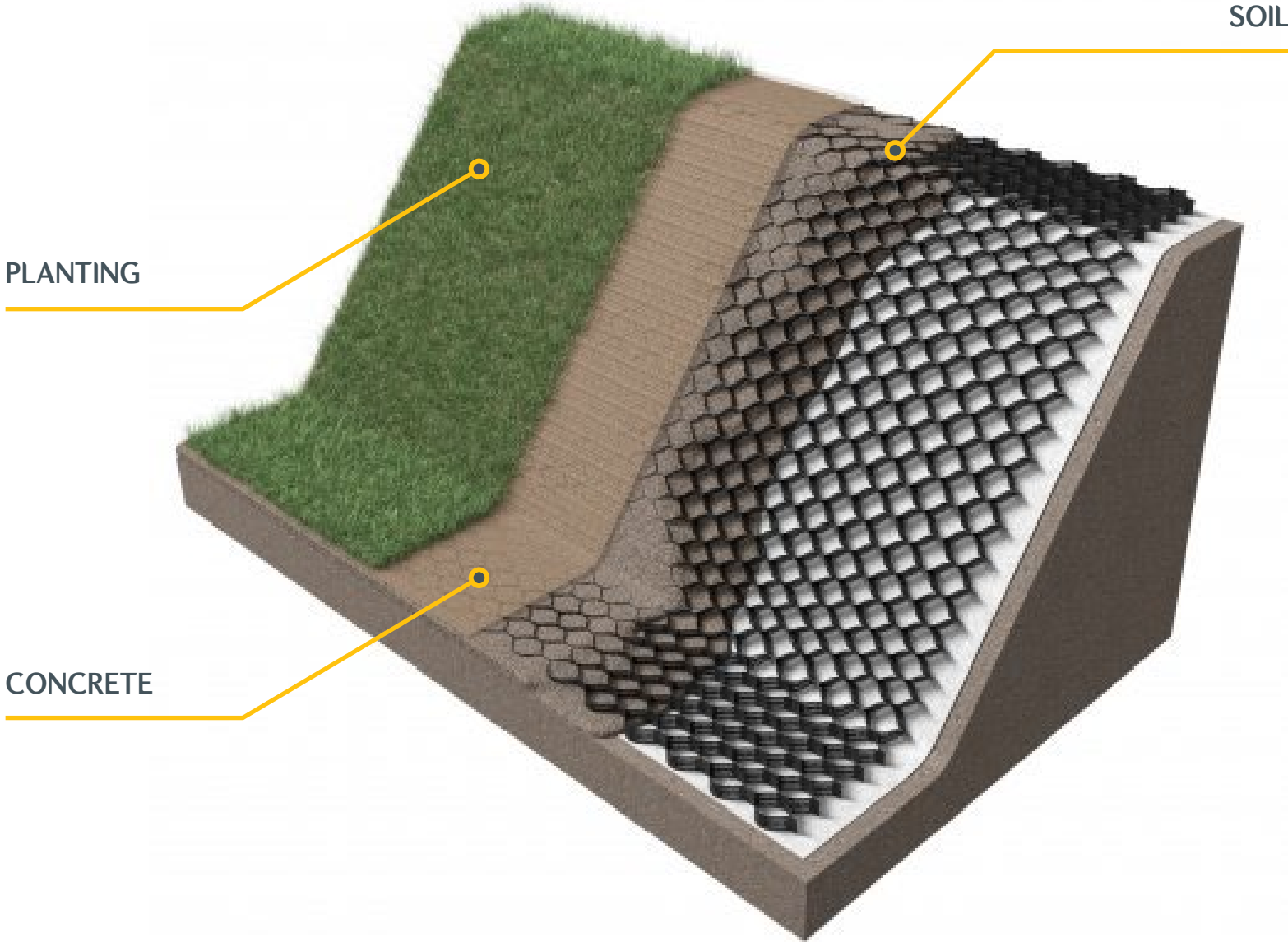


APPLICATIONS

1. SLOPE PROTECTION
2. CHANNEL STABILIZATION
3. ROAD BASE STABILIZATION
4. LOAD SUPPORT (PLATFORM)
5. LANDFILLS
6. MINE COVER



FILLING MATERIAL



PROJECTS

SLOPE PROTECTION EMAAR, UPTOWN CAIRO



PROJECTS

SLOPE PROTECTION 30 OF JUNE ROAD



CLIENTS



GARBLT



NEW SUEZ
CANAL



ARMED FORCES
ENGINEERING AUTHORITY



ARAB
CONTRACTORS



ORASCOM



HASSAN ALLAM



SAMCRETE



SAMCO



PALM HILLS



EMAAR



TMG HOLDING



MABANY EDRIS





QUESTIONS?
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