ENTEMAZ SOLUTIONS

Engineering Technologies Materials

GROUND STABILISATION
EROSION CONTROL
SLOPE STABILISATION
DRAINAGE
REINFORCEMENT
ENVIRONMENTAL
DESIGN CONSULTANCY
TURNKEY SOLUTIONS

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Company Profile

ENTEMAZ is a solution driven company which provides services for various civil engineering applications.
We believe in providing innovative solutions as per the client requirement to build the better environment for future.
Our mission is to serve green and eco-friendly solutions to the Infrastructure Industry especially into the growth driven sectors such as

ROADS
RAILWAYS
RIVERS
COASTAL
LANDFILLS
TUNNELS

Our Vision is to create and build world full of innovative services through continuous research, design, supply and Installation of such products.
Our team has enough strength to take challenges in civil engineering applications and provide solutions through innovative design, consultancy, supply and installation of such products.

Our Products

- GEOTEXTILE
- GEOCELLS
- GEO COMPOSITE
- GABIONS
- C MAT (COIR MAT)
- GEOTUBES
- GEO BAGS

GEOTEXTILES

WOVEN/Non-woven Geotextiles

OVERVIEW

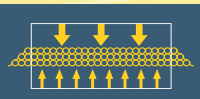
ENTEMAZ is a market leading brand of woven/nonwoven geotextile with a range of different polymers, weave patterns and strengths.

We offers three specific types of woven geotextile: SG (Standard Grade), HS (High Strength) and HF (High Flow). Our woven geotextiles are specified by both civil and marine engineers, most commonly for the separation and reinforcement of soil and aggregate layers. Applications include roads, railways, foundations, embankments and coastal defences. Woven geotextiles provide a cost effective solution for the separation of granular fill materials and for the provision of sub structure support. The most common application is for the use as a separating layer beneath roads, helping to prevent rutting through separation and tensile support.

Geosynthetics function symbols

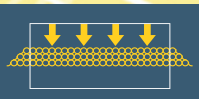
Geosynthetic products play an integral role in the majority of building, civil and marine engineering projects. While the range of applications and uses is vast, the functions can be broken down into six broad categories.

The function symbols have been developed to provide a quick reference guide to the function of each geosynthetic product.



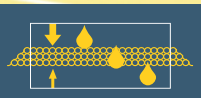
SEPARATION

The use of a geosynthetic to prevent intermixing of dissimilar soil layers.



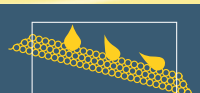
PROTECTION

The use of a geosynthetic as a stress reduction layer to prevent or reduce damage to an adjacent surface or layer.



FILTRATION

The use of a geosynthetic to allow the passage of fluids while preventing the uncontrolled passage of soil particles.



EROSION CONTROL

The use of a geosynthetic as a stress reduction layer to prevent or reduce damage to an adjacent surface or layer.

REINFORCEMENT

The use of tensile properties of a geosynthetic

DRAINAGE

The use of a geosynthetic to collect and

VETIVER GRASS SLOPES FOR GREENWAYS

IS Code Approval For Vetiver Grass

- Vetiver is a special type of grass which can be grown into a wide variety of soil such as clayey, sandy or in other words from least erodible to highly erodible soils. This type of grass does not require any special type of maintenance. Vetiver is capable of growing in wide range of climates ranging from 300 mm annual rainfall to 6000 mm annual rainfall and from -14 degree Celsius to more than 50 degree celsius of soil temperature.

- The stabalisation and protection of slopes by vetiver grass is effective, efficient and low cost vis-à-vis other traditional methods of erosion control like stone rip-rap. Vetiver grass penetrates vertically below to considerable depths into the sub-soil, its roots have a significant strength and thereby improve the shear strength of sub-soil at a depth of 0.5 m.

- Distance between consecutive hedge rows can be kept between 30 to 50 cm. Planting operations of vetiver slips is similar to planting of rice seedlings. The next slip is planted 10 to 15 cm from the already planted slip among the same contour. Once the hedge has been established at the slope, only care needed is annual trimming, if required.


STRONG ROOTS OF VETIVER GRASS


Steep batter protected by vetiver hedges


Eight months after planting

BANK STABILISATION

EROSION CONTROL MESH

EROSION CONTROL MESH is a highly effective erosion control matting developed to protect slopes and embankments from wind and water erosion. It is only by establishing a natural vegetative layer on a slope that erosion can be controlled. EROSION CONTROL MESH has been designed to help quickly establish a strong vegetative layer, helping to retain good soil and seed on steep slopes. Constructed from multiple layers of high tensile polyethylene, it traps soil particles in position helping to encourage seed germination.

As the vegetation becomes established, EROSION CONTROL MESH becomes an integral part of the root zone, helping to further strengthen and reinforce the slope. EROSION CONTROL MESH has been used on slopes in many different environments.

NATURAL FIBRE EROSION CONTROL

We also offer an extensive range of biodegradable erosion control products. Natural fibre matted products perform in a similar manner to our Erosion Control Mesh, by assisting soil retention and helping to quickly establish plant growth on slopes and embankments.

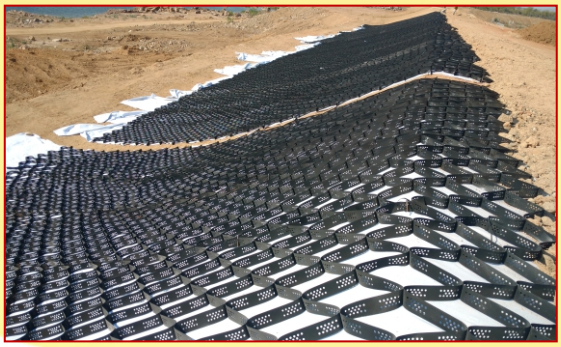
Our natural erosion control products are manufactured from agricultural by-products, such as coir (coconut)and straw, which are supported and interwoven with either jute or polypropylene netting. These products help to successfully establish vegetative growth on slopes and embankments before naturally breaking down and becoming part of the established vegetation.

CELLULAR CONFINEMENT SYSTEMS

CELLULAR CONFINEMENT SYSTEM

The cellular confinement system has been designed to prevent shear failure and lateral movement of aggregate materials. Geocell stabilises the infill, providing load distribution over weak soils and base stabilisation for paved and unpaved roads.

Geocell is a perforated panelled system, providing contractors with straight forward installation, even on steep banks and slopes. They provides a cost effective solution for stabilisation, reducing the granular fill requirement by up to 50%. They permits the use of common fill materials even in locations of high load intensity. Manufactured from high density polyethylene (HDPE), when infilled,provides a semi-rigid foundation. Traffic loads are distributed laterally, reducing rutting and assisting in the retention of infill materials.



Geocells collapses into lightweight and compact bundles for easy handling on site. The perforations improve lateral drainage through cell walls, promoting stability through greater root lock in vegetated installations.
Additional tendons, incorporated into the system through pre-drilled holes, provide additional clamping of the geocell. This provides additional stability to the overall system.
Geocells can be installed and built up in layers to create steep and structurally sound embankments, often in support of roads and railways. This method of construction provides engineers with a cost effective and reliable method for embankment creation, furthermore geocells helps to promote the growth of natural vegetation cover.

APPLICATIONS

- ★ Road and pavement reinforcement
- ★ Rail base stabilisation
- ★ Slope and channel protection & stability
- ★ Earth retention for banks and slopes
- ★ Earth walls
- ★ Reservoir and landfill protection
- ★ Vegetative slope confinement/erosion control

DRAINAGE COMPOSITE

ENTEMAZ solution is providing the various products for drainage works in roads, railway, bridge abutments, tunnel, potable reservoirs, parks, building, and retaining wall with its unlimited scope.

Our product is innovative and established worldwide. It is the composite of non-woven geotextile bonded onto one or both sides of HDPE core. It has been designed to work under the heavy surcharge loads.it has been widely used in infrastructure industry with many success story.

Our product is replacement for sand, gravel drains which involve huge cost and maintenance. It is durable and sufficiently robust to resist the stresses on it.

Geodrains are supplied in variety of roll sizes to suit different requirements.

GEOCOMPOSITE FUTURE FOR BETTER DRAINAGE

• Supply • Supervision • Installation

APPLICATIONS

- ★ Road and pavement ★ Sub surface drainage
- ★ Vertical Edge Drains in Roads & Highways
- ★ Railways ★ Retaining walls ★ Bridge Abutments
- ★ Tunnels

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Innovative Solutions For Infrastructure

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