TECHFAB INDIA

At the Heart of Geosynthetic Activity

www.techfabindia.com

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TFI 3000 Series High Strength Polyester Woven Geotextiles TFI Woven Geotextiles

TFI 3000 Series High Strength Polyester Woven Geotextiles are woven multifilament geotextiles manufactured from high tenacity polyester filament yarns. These have high tensile strengths, low elongation, low creep and excellent durability and are recommended for applications where the predominant geosynthetic function is reinforcement. With its low apparent opening size and adequate permeability, the geotextile can also perform the function of separation and to a limited extent filtration.

Applications :

- Subgrade separation and stabilization for roads • Airports • Rail Tracks
- Area stabilization • Ground improvement • Load transfer platforms
- Basal reinforcement of embankments • Geotextile tubes

Quality :

- CE Marked • Tested at TRI USA
- Tested at BTTG UK

Production Capacity:

- 4320 Tons Per Annum / 3.5 Million SQM Per Annum

TechGrid Polyester Geogrids

TECHGRID

Techgrid Geogrids are knited and Polymeric coated polyester geogrids manufactured from superior grades of high tenacity, high molecular weight and low carboxyl end group polyester yarns, which are formed into a dimensionally stable grid structure using a highly sophisticated weft insertion warp knitting and coating technology.

TechGrid TGU series of uniaxial geogrids are available in a range of tensile strength and are suitable for applications, which requires strength in one direction.

TechGrid TGB series of biaxial geogrids are designed for applications where strength requirement is in both directions.

Applications for TGU :

- Reinforced soil walls • Steep slopes
- Basal reinforcement for embankment • Veneer reinforcement

Applications for TGB :

- Reinforcement of base & Sub base
- Area stabilization • Track bed stabilization • Load transfer platform

Quality :

- CE Marked • BBA Certified • Tested at TRI USA • Tested at BTTG UK
- Tested at IIT's India

Production Capacity:

- 51 Million SQM Per Annum

TechFab Geotextile Bags (Woven & Nonwoven)

High performance Woven Geotextile Bags are made of specifically Woven Geotextile and Non woven Polypropylene Geotextile Bags are made of nonwoven, needle punched, Staple fiber Geotextile, filled on site with sand or grout.

Both the materials have high flow rate, better filtration behavior, high puncture and abrasion resistance and extreme U.V. resistance characteristics.

The Geotextile bags are designed to be filled with sand such that they form stable, durable container for River works and other related hydraulic applications.

Applications :

- River Bank Revetments • Beach Erosion Protection • Construction of Groynes & Bund wall • Scour protection of bridge piers • Protection of Embankment from erosion during floods

Available Size :

- 1.03 m X 0.70 m • 1.09 m x 0.69 m • 1.0 m x 0.75 m • 2.0 m x 1.5 m
- 1.20 m x 1.0 m

Production Capacity:

- 6000 Metric Tons / Annum

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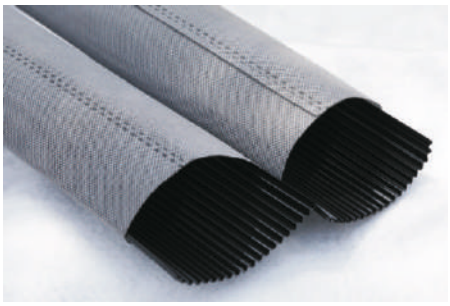
TechDrain Prefabricated Vertical Drains (PVD/Band Drain)

TechDrain PVD

TechDrains are composite in construction with an inner core wrapped in a nonwoven geotextile filter fabric. The inner core is of polypropylene and the filter fabrics are of polypropylene or polyester. The Prefabricated vertical drains are required to have high premeability and sufficiently high drainage capacity so that pore water escapes in horizontal direction toward the nearest drain.

We manufacture two types of PVD - Corrugated PVD, Fishbone PVD . TechDrain is predictable, in both technical and financial terms. PVD technology has proven itself in hundreds of projects in the last thirty years.



Applications :

- Land reclamation projects
- Construction of highways, railways, airfields and dykes
- Ports and harbor construction
- Development of industrial sites
- Mitigation of liquefaction

Production Capacity:

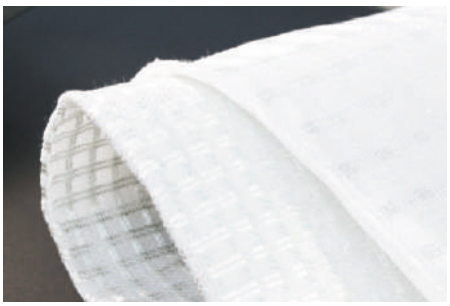
- 162 Million Linear Meters Per Annum

Quality :

- CE Marked
- Tested at:
- AIT Bangkok
- CTT Group (Sageos) Canada
- TUV SUD PSB Singapore
- IIT Chennai India
- SLS - Singapore

Asphalt Interlayer Composites (AIC) Reinforced Nonwoven Composite (TGC)

TechGlass AIC is a composite of high modulus, low strain glass fiber strands sstched to a Polyester/Polypropylene nonwoven. The reinforcing effect of the low strain glass fiber strands to the asphalt system in combinationwith the water proofing, stress relieving and bonding propertiesof the nonwoven leads to a dramaatir reducti of re refl e cracking under asphalt overlays.



Techfab TGC products are reinforced nonwoven composite geotextles comprising a Polyester/Polypropylene nonwoven geotextileto which high tenacity polyester filament yarns are knit bonded in the machine and cross Machine directions. The high tenacity, high molecular weight, low CEG polyester filament yarns with high tensile strength and low creep perform the functon of reinforcement and the nonwoven performs the fuccons of separation,filtraratiand drainage

Production Capacity:

- TGC - 5400 Tonnes/ Annum
- AIC - 5.0 Million SQM / Annum

Applications for AIC :

- Heavy stressed pavements & bridge decks
- Airports Runway, Taxiway, Highway & Motorway
- Asphalt pavement rehabilitation & Asphalt overlays over concrete pavements

Applications for TGC :

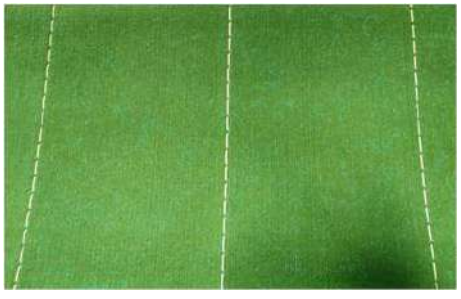
- Paved and unpaved roads
- Load transfer platforms over saturated soil
- Railway Track Construction
- Parking lots
- Reinforced soil walls and slopes with lower quality fills

Quality : CE Marked • Tested at TRI USA • Tested at BTTG UK

Tech GeoMattress

Tech GeoMattress is a Flexible and Tubular shaped Green Mattress System, manufactured from two layers of geotextile, upper layer is green colored composite fabric having green cut fiber on top and bottom layer is high strength woven fabric.The upper layer provides long lasting UV protection and enhancing natural vegetation growth and gives attractive look of the protection bank.

TechGeoMattress is one of the well established Eco-Friendly Soft solutions for various flood control applications. The tubular shape of GeoMattress helps in dissipatin g energy of longitudinal current and wave action of stream, this helps in reducing velocity at banks & controls the scouring and erosion.



Production Capacity :

- 50,000 SQM / Annum

Available Size: Width – 4.5 m, 5.1 m
Roll Length Available in 33 m

Applications

- River Bank Revetment
- Navigational Canals & Water
- Coastal Revetment
- Ponds & Reservoirs

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PP Needle Punch Nonwoven Geotextiles

TechGeo nonwoven geotextiles are manufactured from PP staple fibers, which are mechanically bonded through needle - punching to form a strong, flexible and dimensionally stable fabric structure, with optimum pore sizes and high permeability. The products are manufactured to world-class standards through German DILO needle punch machines.

The geotextile is resistant to chemicals and biological organisms normally found in soils and are stabilized against degradation due to short- term exposure to ultraviolet radiation.

Applications:

- Subgrade separation for roads, airports, rail tracks
- Filter for hard armour erosion control systems
- Filter for granular drainage systems in roads, railways, airports, retaining walls, slopes, landfills
- Geotextile bags and containers • Geomembrane protection, paving fabrics

Quality:

• CE Marked • Tested at TRI USA • AASHTO NTPEP • Tested at BTTG UK

Available Size : Width - 2.5m, 3.9m, 4.5m, 5.0m

Production Capacity:

- 10,800 Tons / Annum

TechDrain Drainage Composites

Drainage composites are formed by a combination of geotextile (Woven or nonwoven), acting as a filter and separator on one or both sides with a core of Geonet. It has remarkable integration with full-fledged production with in house lines under one roof for : • Polypropylene Staple Fibre • Non woven Needle punch Geotextiles

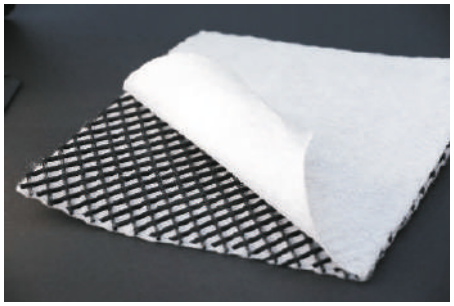
Techfab Drainage Composite allows water to pass through into the polymer core but prevent the soil partciles to enter inside. Techdrain drainage composite which directly replace the granular drainage layer completely or partially.

Applications :

• Reinforced Soil Wall & Retaining Wall • Pavements & Track Bed Stabilization
• Canal Lining • Tunneling
• Landfill • Roof Gardening, Sport Fields & Podium Construction • Landscaping Projects

Available Size :

• Width - 2.0m, 4.0m, 3.8m • Length - 25m / 50m



Production Capacity:

- 7.2 Million SQM / Annum

TechGrid PP Biaxial Geogrid

Techgrid PP Biaxial - an intergrally formed biaxial geogrid consisting of high quality polypropylene and carbon black. The punched and drawn (stretched) manufacturing process are so designed that they provide the lateral confinement and helps in reinforcing the weak soils. Its primary function is reinforcement and confinement through apertures that allows for strike through of surrounding soil, stone .

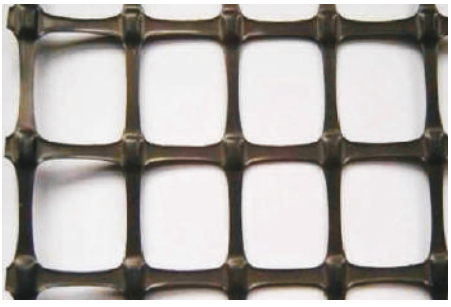
These have the same tensile strength values in both the directions and demanded where the stresses are coming from both the directions. It helps in better distribution of wheel loads over reinforced area.

Applications:

- Subgrade stabilization of unpaved roads, highways, airports and railway tracks
- Base Reinforcement
- Hard standages, working platforms, load transfer platform
- Area stabilization, void spaning • Reinforced soil walls and slopes (soft facing/ secondary reinforcement)

Available Size:

• 4m width or shorter width - 3.95m • Roll length available in 50m



Production Capacity:

- 2400 Metric Tons Per Annum / 5.0 Million SQM Per Annum

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TechCell

TechFab India started manufacturing Techcell, which has a generic name Geocell. Techcell is a light weight yet strong, three dimensional honeycomb like cellular confinement system. It is used with infill granular material and used for ground improvement to weak foundation soil by increasing its load bearing capacity and also to control slope erosion by surface protection system. The basic raw material used for its manufacturing is High Density Polyethylene stabilized with carbon black. There are different width of strips (as per the thickness requirement at site), connected through staggered welding and supplied in collapsed from. When open for use, it spreads like honeycomb structure hence providing ease during installation.

Applications

- Roadways • Railways • Steep Soil Reinforcement
- Reservoirs • Landfill Area • Channel protection

Quality

- BTRA Test Report • Tested at BTTG • Tested at TRI

TechCell

Production Capacity:

- 10 Million SQM / Annum

TechStrap

TechStrap is planar structures consisting of a core of high tenacity polyester yarn tendons encased in a polymer sheath. The strips are suitable for reinforcement applications in combination with concrete wall facing panels.

The composition and thickness of the sheath for Techstrap is specifically engineered to provide a high level of dimensional stability and protection from weathering and exceptional resistance to installation damage.

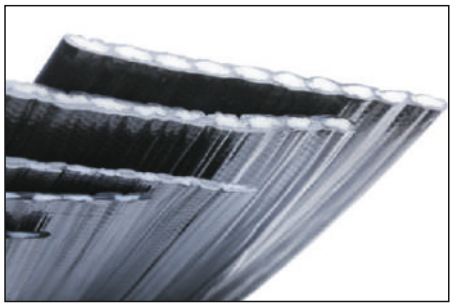
The polyester yarn tendons are the load - carrying elements and comprise select high tenacity polyester filament yarns with high tensile strength and modulus, low creep, high molecular weight (> 25,000 g/mol) and low caboxyl end groups (< 30mmol/kg) to ensure excellent performance and durability.

Applications :

- Reinforced soil walls • Shored MSE walls

Quality : • Tested at TRI USA

TECHSTRAP



Production Capacity

- 86 Million linear meter / Annum

TechFab Metal Gabions

Techfab Metal Gabions are factory assembled gabion boxes manufactred from hexagonally woven double twisted steel wire mesh with zinc and PVC coating, which are supplied in a collasped form. The gabions are available in a range of sizes. The larger size gabions are partitioned into cells of equal sizes with internal diaphragms to minimize internal movement of stones and to enhance stability. The gabions are filled with durable stone to form flexible, permeable and monolithic structures for construction of retaining walls, small hydraulic structures and for erosion and scour protection. We also manufacture Techfab Metal Gabion Mattresses for erosion and scour protection and Techfab Metal Netting for rockfall protection.

Applications:

- Gravity and reinforced soil retaining walls
- Bed and bank protection for rivers, streams and canals
- Scour protection of bridge piers and abutments, river training
- Construction of weirs, spillways, drop structures, culverts, river crossing

Available in Mesh Size: • 80mm X 100mm • 100mm X 120mm

Quality: • CE Marked • BIS Approved

TechFab-Metal Gabion

Production Capacity:

- 6000 Tons Per Annum

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TechRhombus
Flexible rope net system

TechRhombus high tensile rope net system is made out of high tensile steel wire ropes with tensile strength of more than 1960 N/mm2 which is a superior alternative to conventional rockfall protection system. High Tensile rope net system works in combination with or without bearing plates and other elements like top & bottom support ropes, wire rope anchors and soil nails. TechRhombus can be used for both active and passive rockfall protection system.

Applications :

- Rockfall Protection
- GeoHazard Mitigation
- Slope Stabilization
- Landslide Mitigation
- Surface Protection

Available Size : Length – 5, 6, 7, 8, 9, 10 m • Width – 2, 3, 4, 5 m

Quality : • CE Marked

TechSlope Mesh

TechSlope flexible slope stabilization system made out of high tensile steel wire which has minimum deformation and maximum tensile strength, the mesh has unique advantages over conventional slope stabilization methods using hard facing such as shotcrete. The flexible slope stabilization system works in combination with or without bearing plates and other elements like top & bottom support rope, wire rope anchors and soil nails.

The high strength mesh is equally effective in case of grid beam method where in the bearing plate is replaced with a concrete pillow. The system can be used to protect any kind of slope, be it soil slope or rock or embankments.

TechSlope flexible slope stabilization system is available in two types:

- TechSlope 65/3
- TechSlope 100/3.4

Applications :

- Rockfall Protection
- GeoHazard Mitigation
- Slope Stabilization
- Landslide Mitigation
- Surface Protection

Available Size :

- Width - 3.0 m

Roll Length Available in 30 m

TechAnchor

TechAnchor Self Drilling Anchors are most commonly used items for slope stabilization projects as well as tunneling and mining projects because of its flexibility to use in various type of soil and rock conditions. TechAnchor systems reduces the cost of project to a significant amount with its lower cost of stocking as it can be kept with full length and can be cut as per project requirement. Smaller diameter bars can be used under same load due to extraordinary steel mechanical properties. Several types of drill bits (Cross, Clay, Jetting, segment etc.) available for various project needs. Soil nailing should be planned in rhombus shaped grid to ensure efficient distribution of the reinforcement. Available in various types of coatings such as epoxy, galvanized etc.

Applications:

- Surface Protection
- Soil Nailing

Available Size :

- Length - 3.0, 4.0m
- Diameter - 25, 32, 38, 51, 76 mm

TechRhombus HRC
High Tensile Rope Net System

Production Capacity:

- 500 Metric Tons / Annum

TechRhombus

High Tensil Rope net System is available in two types of junctions:

- High Resistence Clip (HRC)
- Steel Wire Knot (SWK)

TechSlope Mesh
Flexible Slope Stabilisation System

Production Capacity :

- 720 Metric Tons / Annum

TechAnchor

Production Capacity:

- 650 Metric Tons / Annum

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Professional Activities Affiliations

- TFI is an active member of several professional and trade organizations like indian Road Congress, Indian Geotechnical Society, International Geosynthetics Society, Geosynthetics Materials Association, etc.
- Acti e member of Indian Technical Teextile Association TA).
- TFI actively participates in the formulation codes and standards related to geosynthetics and geotechnical engineering as a member of expert technical committees like H-4 committee of Indian Roads Congress and TX-30 and TX-33 committee of Bureau of Indian Standards
- TFI has participated in several conferences, workshops and seminars as an exhibitor, author, delegate, etc. and presented technical papers and case studies in journals and trade magazines.
- TFI was instrumental in bringing out a book entitled " Geosynthetics for Railways" with the support of Prof.G.V.Rao.
- TFI has organized several seminars on geosynthetics related topics to educate end users, consultants and contractors on the advantages and benefits of geosynthetics solutions.
- TechFab has been honored by IGS Board, to recognize the contribution for the development and promotion of uses of Geosynthetics in the country with the, " Institutional Award for Indigenous Manufacturing" in 2015.
- TFI has won the APAC Insider India Excellence Award for Best Geosynthetics Manufacturer 2018.
- We have recieved Appreciation from KELLER GRUNDBAU GmbH Germany, the world leader in soil improvement/ ground improvement for our best services and supply of PVD for their esteem project.

International Presence

TFI's high quality products have a ready acceptance in large number of countries. We export our products like Techgrid, TechGeo, TGC, TechGlass, TFI 3000 etc. to over 35 countries all over the world.

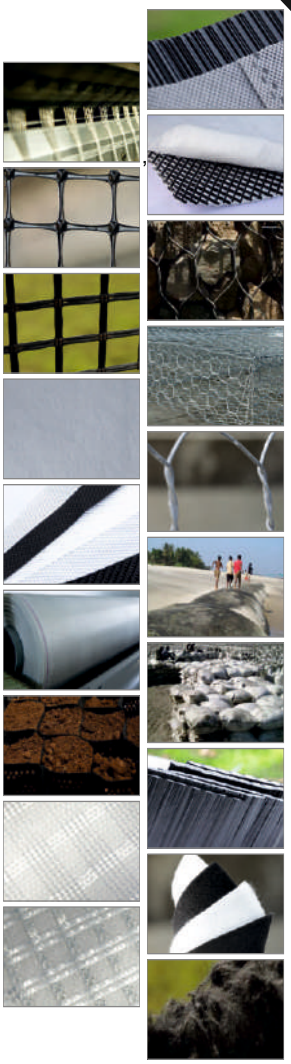
TECHGEO | TechDrain PVD | tech glass | TECHGRID | TechStrap | TechRhombus HRC

TechDrain | TechFab-Metal Gabion | TECHGRID | TECH TUBE | TechCell | TechAnchor

ABOUT TECHFAB INDIA INDUSTRIES LTD

TechFab India was founded in 2003 with the objective of providing world class geosynthetic products and services to serve the needs of manufacturing development in India. From a modest beginning with the setting up of a manufacturing facility for woven geotextiles in Silvassa, we have rapidly grown to become the largest manufacturer of geosynthetics and Rockfall protection & GeoHazard Mitigation products in India. Today we manufacture a wide range of products at our factories in Silvassa Daman and Haridwar. Details are as under:

- TechGrid Knitted and polymer coated Polyester Geogrids (CE Marked & BBA Certfied)
- TechGrid-Base Reinforcement Geogrids (CE Marked)
- Tech GeoMattress
- TechGeo Needle Punched Nonwoven Geotextiles (CE Marked) AASHTO NTPEP evaluated
- TFI 3000 Woven PET (CE Marked)
- TGC Reinforced Nonwoven
- TechPave Paving Geotextiles (CE Marked)
- TechFab Metal Gabions (CE Marked)
- TechDrain - Prefabricated Vertical Drains (CE Marked)
- TechTube Geotextile Tubes & Bags
- TechDrain Drainage Composites
- TechGrid PP Biaxial Geogrid (CE Marked)
- TechCell GeoCells (CE Marked)
- TechStrap Polyester Strap (CE Marked)
- Tech Fibre - PP Staple Fibre
- TechRhombus (CE Marked)
- TechSlope Mesh
- Tech Anchor - Self Drilling Anchors



World-class Geosynthetics Manufactured in India by Techfab India Industries Ltd.												
TFI WovenGeotextiles		TechGrid Geogrids	TGC Reinforced Nonwoven Composites	TechDrain PVDs	TechDrain Drainage Composite	Tech GeoMattress	TechGeo Nonwoven Geotextile / TechPave	TechFab Metal Gabion Double twist wire mesh products	TECHTUBE & Geotextile Bags	TechGrid PP Biaxial Geogrids	TechStrap Polymeric Strip	TechCell Geocell
Polypropylene Multifilament	Polyester Multifilament											

TechFab In house laboratory is accredited With ISO/IEC - 17025:2017 & GRI - GAILAP

TECHGRID | TECHGEO | TFI Woven Geotextiles | TechDrain PVD | TechCell | TechRhombus HRC High Tensile Rope Net System

TechFab-Metal Gabion | TechGrid PP Biaxial Geogrid | TECHTUBE | TechDrain DRAINAGE COMPOSITE | TechSlope Mesh Flexible Slope Stabilisation System | TECHSTRAP | TECHLINK

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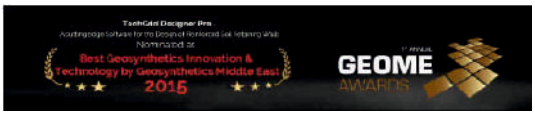

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