



terrafix®

Canada's leader of complete geosynthetic solutions

Since 1973, **Terrafix®** has been dedicated to offering owners, engineers and contractors the correct choice of geosynthetic products and innovative technology.

Long recognized as an innovator in the industry, **Terrafix®** now offers services which include design assistance, factory fabrication and installation of a wide range of geosynthetic products.

Terrafix® professional staff of salespeople, field technicians, project managers and engineers are available to assist clients in maximizing the benefits that our geosynthetic products and systems make possible. We provide you, the engineer, contractor, and owner with technically sound cost saving solutions to your challenges.

- Coir Mat erosion control mattings are made from coir fiber which is 100% natural, organic, biodegradable and safe to wildlife.
- **TerraFirm® Anchoring Systems** offers a unique mechanical stabilization solution for many steep slope challenges.
- Envirobags are designed to contain silt, sand and other fines while allowing water to filter out. Compared to other techniques, Envirobags offer superior performance in the protection of wetlands.
- Each Mud Mat is made up of a double layer of high strength 100% polypropylene, woven geotextile fabric that is stitched in such a way to encapsulate the reinforcing members that run perpendicular to the direction of traffic.
- Erosion control blankets provide a mechanically stabilized form of immediate cover, functioning as a barrier against both the detachment and transportation phase of erosion process until vegetation or reinforced vegetation assume this function.
- Silt Curtains are designed to deflect and contain sediment within a designated area. Manufactured from high strength geotextiles and fabricated to a variety of sizes.
- Biodegradable erosion blankets help establish vegetation and prevent erosion from wind and rain.
- Silt fences help to contain silt runoff from construction sites.
- Cellular confinement systems are used to confine and strengthen infill materials such as rock sand and topsoil.
- Stormwater management solutions allow developers to match pre and post development hydrology.
- Pipe solutions provide conveyance options as well as permanent effective restoration of deteriorated traditional pipes and culverts.

The **Terrafix®** group of companies is dedicated to providing engineered, geosynthetic alternatives to the designer, owner and contractor in civil, industrial and environmental industries.

Terrafix® offers a turn-key approach to solving environmental problems.

Terrafix® products have been extensively tested by private industry, universities and engineering consultants.

Terrafix® products and construction technology have been successfully applied around the world. From engineering to construction, our teams of experienced professionals are committed to providing the most advanced engineered solutions to today's environmental challenges.

Solving environmental problems is a serious business and at **Terrafix®** we take our business seriously.

terrafix®

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To view our complete
product line visit us at

www.terrafixgeo.com



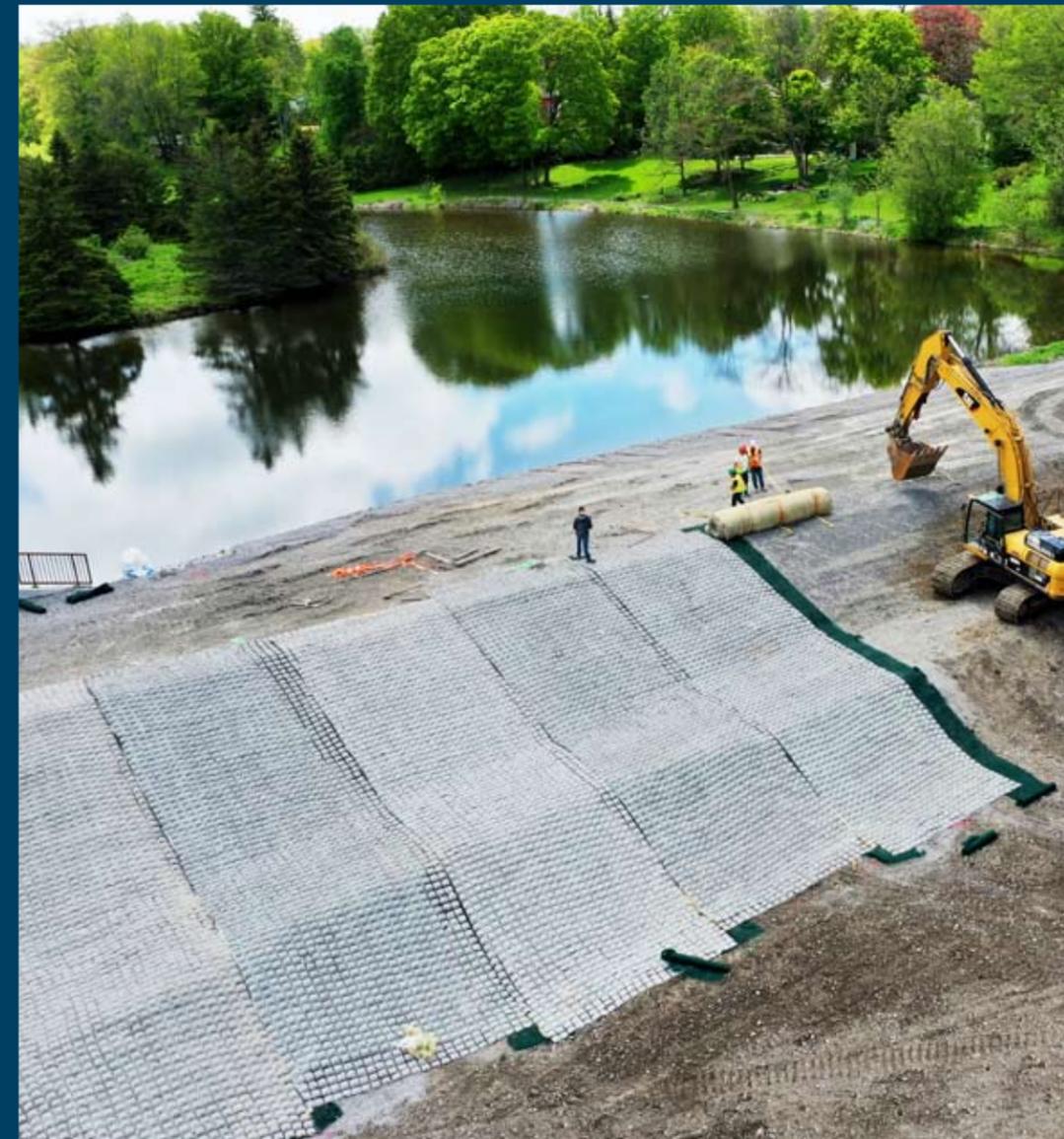
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geosynthetics inc.

Erosion & Sediment Control Solutions



Canada's leader of complete geosynthetic solutions

FLEXICRETE®

FLEXICRETE® is a system of solid concrete blocks connected together to form continuous inter-connected areas which can be used for a variety of purposes. The standard individual blocks are square.

Depending on the purpose for which the **FLEXICRETE®** panels are to be used, different types of interlocking materials can be used such as mild steel, nylon rope, high tensile steel and stainless steel aircraft cable.

FLEXICRETE® can be used for:

- embankment protection to prevent erosion
- open storm drain lining
- aqueduct lining
- shore and beach protection
- breakwaters
- boat launch ramps
- spillweirs
- pond lining support
- paving, roads, military roads, express road shoulders
- parking areas and protection of buried utilities including utilities under water.



TerraWeb

Terraweb® is a light-weight, flexible, polyethylene confinement system consisting of three-dimensional cells in a honeycomb-like structure. Terraweb® creates an economical erosion barrier or structural foundation.

For difficult erosion control situations, the **Terraweb®** cellular confinement system can be substituted for a more convenient system of expensive heavy materials such as rip-rap, armour stone, gabions etc. **Terraweb®** can be filled with soil, sand, small rock or concrete. The cells confine the fill material and protect it from being moved by wind or water. The cell walls prevent formation of rills and gullies.

Features

- Light weight and easy to install
- Reinforces unstable surfaces
- Eliminates over excavation
- Eliminates excessive stone placement

Benefits

- Reduced material cost
- Reduced labour cost
- Reduced installation cost
- Economical option to strengthen soft soil areas



ScourStop™

ScourStop™ transition mat is a biotechnical replacement for hard armor. It is a mechanically-anchored 4 ft. X 4 ft. X .5 inch semi-rigid, polymer mat designed with voids throughout the structure which enable vegetative growth. Transition mats provide mechanical protection over highly erosive areas; like stormwater pipe outfalls, curb outfalls, over-flow structures, and shorelines. Transition mats provide protection against much higher shear stress and velocities than vegetation alone or rock rip rap; and are comparable in performance to Articulated Concrete Blocks.

Elements of the Transition Mat System:

- Mechanical Protection
- Reinforces appropriate soil covers
- Deep anchoring soil stabilization

Mechanical Protection

- Provides impact resistance, tensile strength and permanent durability against high erosive stresses. The semi-rigid mats conform to soil profiles, uniformly securing solid covers to the ground.

Soil Covers

- Soil is extremely erosive. Some type of best management practice (BMP) cover is required under ScourStop™. Typically a soil reinforcement mat (FM200-TRM), or sod, provides maximum protection for every soil type and condition.

Deep Anchoring

- With an average of 8 anchors per mat, deep anchoring helps the mat conform to the native topography, securing the mat to the soil in a uniform manner.



Gabion Baskets

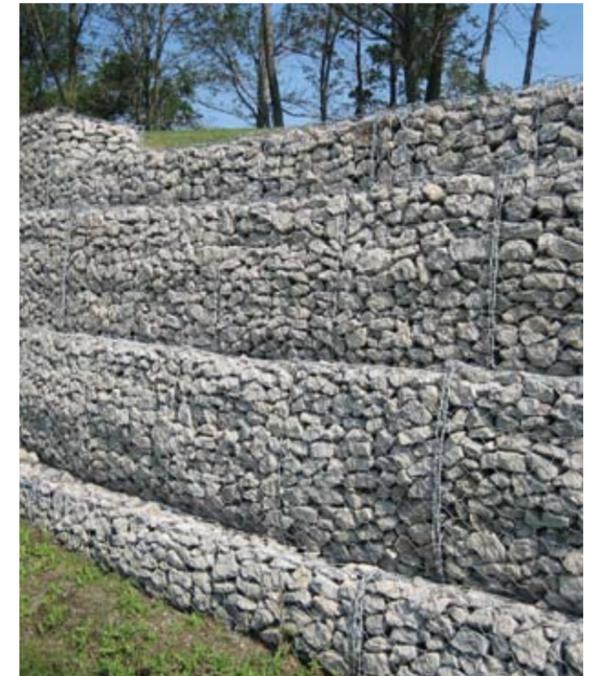
Gabion baskets are wire mesh containers made from double twisted, hexagonal woven wire mesh. Once assembled, the baskets are filled on site with durable stone in order to create flexible, permeable, monolithic structures.

Gabions can be used to create:

- erosion protection structures
- weirs
- soil retaining walls (gravity and MSE)
- culvert headwalls

Gabion structures are able to develop and integrate with the surrounding environment, permitting the preservation or restoration of the natural environment.

The filtering capability of the rock fill allows the soil, water, air, and plant life to interact naturally. Plant life can be developed even quicker by designing steps between each vertical layer creating planting shelves. As gabions provide a completely natural look, they have also been used by architects as decorative elements of the landscape.



Erosion Control Blankets

Erosion control blankets provide a mechanically stabilized form of immediate cover, functioning as a barrier against both the detachment and transportation phase of erosion process until vegetation or reinforced vegetation assume this function. Erosion control blankets are used to prevent surface erosion and accelerate the establishment of vegetation. Typically, blankets are intended for the following applications:

- Slope protection
- Channel and ditch linings
- Reservoir embankments and spillways
- Dikes, levees and riverbanks
- Culvert inlets and outfalls

Benefits and features of RECPs:

- Reduce run off
- Consistent quality and performance
- Retain more water than hydro mulch covers
- Ease of installation
- Excellent performance in strength and durable under high velocities
- Vegetation performs better with blankets than with hydro mulches
- Reduce sediment concentration and soil loss



Coir Mats

Terrafix® Coir Mats are made from 100% natural biodegradable coconut fibre and are naturally resistant to rot and moulds. They are excellent for controlling soil erosion by holding the soil in place and dissipating the force of heavy rains and run-off water. With a longevity of 36 to 72 months, Coir Mats will provide good soil support while allowing natural vegetation to become established. They will also promote growth of new vegetation by absorbing water and preventing the topsoil from drying out, creating an ideal micro-climate for seed germination. Coir Mats are available in 3 varieties, being Coir Mat 400, Coir Mat 700 & Coir Mat 900, with the number corresponding to the density in g/m2 for that particular mat.

Applications:

- Slope and channel stabilization
- Stream and river bank stabilization
- Wetland construction
- Golf courses
- Erodible sea shore
- Dams
- Tidal marshes
- Detention ponds

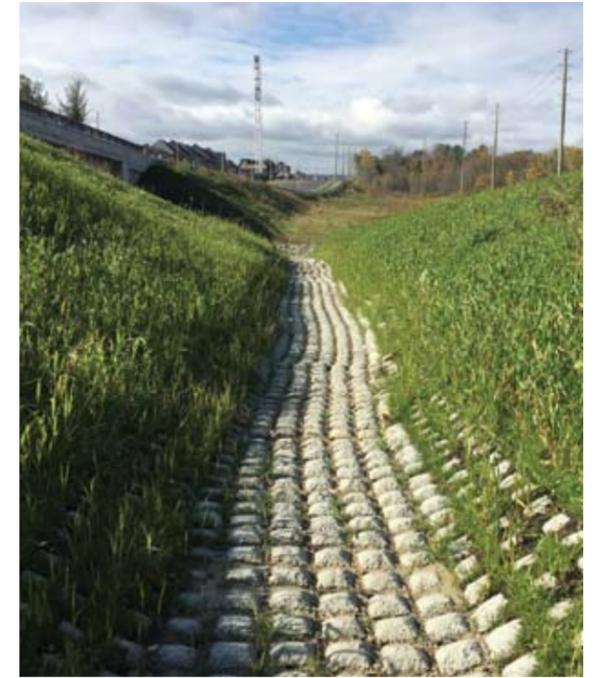


Flexamat®

Flexamat® is a tied concrete block mat used to control erosion in swales, ditches, slopes, shoreline protection, or any area where soil sediment can be moved by water runoff.

Flexamat® consists of concrete shapes, rectangular or round, that are tied together with high strength geogrid. This product results in the geogrid and the concrete becoming a high strength flexible hard armor against erosion. Flexamat enables vegetation to become established while remaining a permanent erosion control solution. Eventually, vegetation will cover the entire mat.

Flexamat® comes in rolls and is available in widths of 5.5', 8', 10', and 16'. These rolls are available in various lengths. The roll design makes installation very efficient. The application area should be graded so that the Flexamat has direct contact with the subgrade. It should also be seeded prior to the Flexamat installation. A smooth bucket on the excavator is used to unroll the mat into place.



TerraFirm®

TerraFirm® anchors and surface mats provide a long-lasting solution to many erosion control challenges. Surface protection materials may include: Biaxial geogrids, TRMs, biodegradable blankets.

Steep slopes and embankments create numerous challenges both during construction and long term. Although they are necessary for efficiency of land use, you may find yourself dealing with problems due to one or more of the following:

- Erosion due to over land flow
- Lack of healthy vegetation
- Poor drainage
- Over steepening

TerraFirm® Anchoring Systems offers a unique mechanical stabilization solution for many steep slope challenges featuring:

- Fast and easy installation
- Stabilization without excavation
- Wide variety of surface protection options
- Easy design load calculation
- On-site assistance
- Low environmental impact



SiltSock

Silt Sock is a sediment-trapping device which uses filter media materials applied with a pneumatic blower device or equivalent. Silt Sock trap sediment by filtering the water passing through the Silt Sock™ also allowing water to pond, creating a settling of solids behind Silt Sock.

Silt Sock is used in any area requiring sediment control to keep runoff in the form of sheet flow. The use of Silt Sock applies to areas of high sheet erosion, on steep slopes up to and exceeding a 2:1 slope, and in other disturbed areas of construction sites requiring sediment control. Silt Sock may also be used in sensitive environmental areas, where migration of aquatic life is impeded by the use of other sediment controls. Filter media used in Silt Sock also have the ability to bind various contaminants contained in runoff.

Terrafence

Terrafence is specifically designed to control soil migration from construction sites, therefore, preventing contamination of adjacent sites such as streams, parking lots, streets and other sensitive areas.

Terrafence is a preassembled sediment control structure designed with environmental concerns in mind.

Terrafence fabric is made of woven polypropylene fibres which have been treated to resist degradation caused by exposure to sunlight.

Terrafence fabric is a high strength geotextile that does not require additional reinforcing nets or other support systems. The light duty fence is preassembled with 1.5" x 1.5" x 48" oakwood posts which are securely attached to the fabric using industrial staples. The posts are tapered at the base.

Terrafence heavy duty fabric is reinforced with polypropylene mesh for additional strength. Hardwood posts are attached to the fabric using heavy duty industrial staples. The posts are tapered at the base to facilitate ground penetration.

Envirobags

Envirobags are a cost effective solution for dewatering applications. Custom sizes are also available to meet specific discharge capacities.

Terrafix® Envirobags are made of durable non-woven geotextiles that are UV stabilized and also resistant to puncturing and tearing.

Envirobags are easy to use and require minimal maintenance.

Envirobags are a cost effective solution for dewatering applications.

- Filters water when working in sensitive areas
- Easy to use
- Minimal maintenance

During filling it is important to monitor the Envirobag. Avoid overfilling which could lead to rupturing of the Envirobag.

Coir Logs

Terrafix® Coir Logs are manufactured from **100% natural biodegradable coconut fibres**. Each log features two components – an outer netting, and inner core material. The outer netting is constructed from a high tensile, machine-spun, bristle coir twine. The high tensile netting is tied in a diagonal pattern with four knots at each intersection and an opening size of up to 25mm x 25mm. The inner core is filled with hydraulically compacted coconut fibre. The product is highly recommended for Bank Stabilization and Shoreline Restoration, where the banks are subjected to severe erosion. The coir logs will act as a buffer, protecting the bank from erosive wave action, while facilitating the establishment and growth of vegetation. Ultimately, the vegetation will provide the permanent solution to protect the bank from erosion. Coir Logs have a functional longevity of approximately 36 to 48 months. The functional longevity period will be effected by the climate and environmental conditions to which the log is exposed.

The functional longevity is enhanced by the strong bristle coir twine, along with the high compaction of the coconut fibre. Coir fibre is **100% natural** and contains no external additives of any sort and no artificial colouring.



Mud Mat

Unroll this amazing new product and drive on any muddy, swampy ground without getting stuck, rutting or tracking mud off site. Mud Mats consist of pocketed, double-wall, high-strength fabric with high tensile reinforcing ribs confined within each sleeve which allows for easy deployment and amazing structural stability.

Mud Mats can be used in construction site access, agriculture, golf & parks, other soft or sensitive ground condition areas where vehicle access is required.

With these Mud Mats ground pressure from vehicle tires is reduced up to 40x causing minimal ground disturbance! Mats can be connected together to form custom sizes.

Meter Bags

Meter bags can be used as a temporary dam to enclose a work area and permit the removal of water. Meter bags have 4 lifting hoops sewn directly into each corner seam, which are also sewn together with the main body fabric for extra strength. They are made of high strength woven polypropylene. They can be filled with any on site material or sand.

Advantages:

- allows work to be carried out in a dry area
- faster and easier to work with than sand bags

Silt Sack

Silt Sack is a simple and cost-effective solution to prevent clogging of catch basins. Silt Sack is a sediment control device used to prevent silt and sediment from entering your drainage system.

Silt Sack traps the silt / sediment but allows water to pass into the sewer. Silt Sack can be used as a primary or secondary sediment control device to prevent failure of drainage system due to clogging with silt / sedimentation. Maintenance of the Silt Sack on a regular basis will ensure that the Silt Sack will function properly.

Silt Curtains

Terrafix® Silt Curtains are designed to deflect and contain sediment within a designated area. Manufactured from high strength geotextiles and fabricated to a variety of sizes.

Silt Curtains are used to provide protection for a watercourse from land disturbance or from dredging or filling within the watercourse. Placed in a water body, they minimize sediment migration from a disturbed area by enclosing the area of work.

Terrafix® Silt Curtains are manufactured from high strength geotextiles and water proof membranes, fabricated to a variety of sizes.

