Canada's leader of complete geosynthetic solutions

terrafix®
geosynthetics inc.

TerraDrain Soil Strip drain

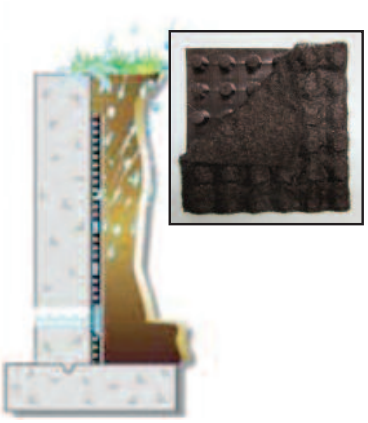
To view our complete product line visit us at www.terrafixgeo.com

TerraDrain®

TerraDrain® 200

TerraDrain® 200 is a geocomposite drain designed for foundation wall drainage where the drainage panel is applied against rigid surfaces such as lagging, caisson walls or excavated rock surfaces. TerraDrain® 200 provides effective relief of hydrostatic pressures through full wall coverage or frequent vertical strips. TerraDrain® 200 can also be applied against a finished foundation wall to a limited depth.

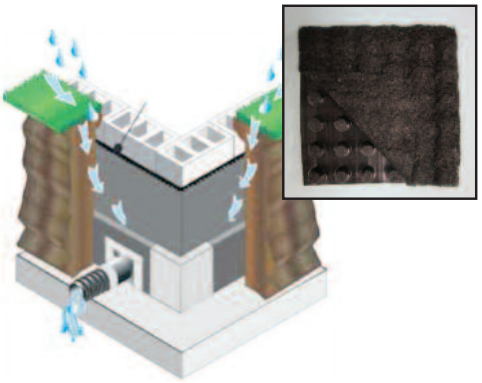
For vertical chimney drain applications, the extra geotextile should be wrapped around the front of the core to seal the edge. Nails or pneumatic fasteners are then driven into the wrapped surface and through the drainage panel to attach it to the lagging. Outlets are made at the bottom of each panel with a pipe connection through the foundation wall.



TerraDrain® 600

TerraDrain® 600 was designed for vertical and horizontal applications such as foundation walls, bridge abutments, retaining walls, under floor slabs, roof gardens and patios. TerraDrain® 600 has a geotextile laminated on one side of the plastic core to allow water entry while filtering the soil. The other side of the core is flat to fit against the wall.

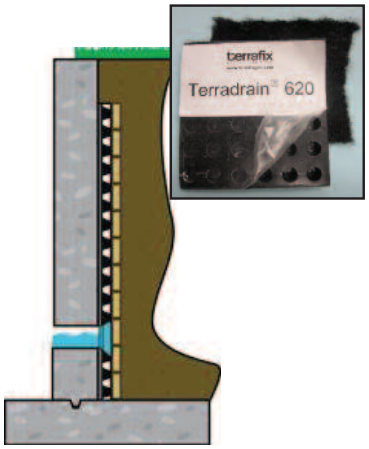
TerraDrain® 600 can be attached to a foundation wall using metal strips, clips or mastic adhesive or temporarily held in place until backfilled. Adjacent vertical and horizontal panels can be easily overlapped and shingled to keep water away from the wall. TerraDrain® 600 can be outletted by placing a perforated drain pipe adjacent to the bottom panel, using the extra geotextile to wrap the pipe.



TerraDrain® 620

TerraDrain® 620 has a thin, high-strength plastic sheet added to the flat side of the core to provide extra protection when applied over softer waterproofing materials. The plastic film prevents intrusion of the soft membrane into the back side of the core dimples.

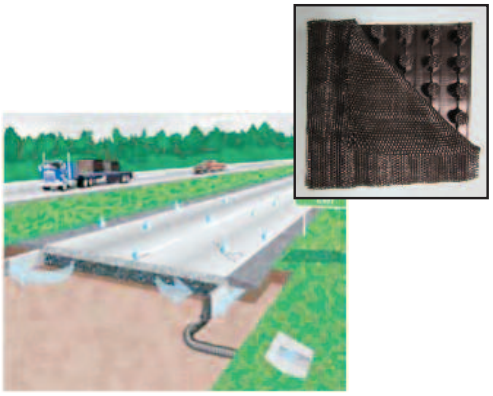
TerraDrain® 620 is installed much the same way as TerraDrain® 200 and 600. If TerraDrain® 620 is being applied over a soft waterproofing membrane it is important to hold it in place using a method or device that will not puncture the membrane.



TerraDrain® 900

TerraDrain® 900 is a lightweight drainage system designed for horizontal drainage of parking decks, plaza decks, balconies and under slab applications. In comparison to conventional aggregate drains, roof loading is dramatically reduced. When used beneath planted areas the thin profile allows maximum topsoil depth for proper root growth.

TerraDrain® 900 is produced in rolls 1.22m x 15.24m for easy, full coverage of horizontal applications requiring high core compressive strength and high geotextile tensile strength.



TerraDrain prefabricated drainage systems consists of a polymer core with a geotextile laminated on one side. The geotextile allows water or gases to pass into the drainage core while restricting the movement of soil particles, which might clog the core. The core provides a void to allow the liquid or gas to flow to designated outlets. Terradrain provides a cost-effective alternative to aggregate drains and a solution to many drainage and vapour problems.

Product Specification

CORE	TERRADRAIN 200	TERRADRAIN 600	TERRADRAIN 620	TERRADRAIN 900	TEST METHOD
MATERIAL	POLYSTYRENE	POLYSTYRENE	POLYSTYRENE	POLYSTYRENE	
THICKNESS - in (mm)	0.25/6.35	0.40/10.16	0.40/10.16	0.40/10.16	ASTM D1777
COMPESSIVE STRENGTH, psf (kN / m^2)	10,800 (517)	15,000 (719)	15,000 (719)	18,000 (862)	ASTM D1621 (MOD)
MAXIMUM FLOW RATE gpm/ft (L / s-m)	12.5 (155)	17 (211)	17/211	21/260	ASDM D4716
GEOTEXTILE	**TERRADRAIN 200**	**TERRADRAIN 600**	**TERRADRAIN 620**	**TERRADRAIN 900**	**TEST METHOD**
GRAB TENSILE, lbs. (kN)	100 (0.45)	100 (0.45)	100 (0.45)	365 (1.62)	ASTM D4632
PUNCTURE RESISTANCE, lbs. (kN)	65 (0.30)	65 (0.30)	65 (0.30)	100 (0.44)	ASTM D4833
APPARENT OPENING SIZE US Std Sieve (mm)	70 (0.21)	70 (0.21)	70 (0.21)	40 (0.42)	ASTM D4751
WATER FLOW RATE, gpm/ft^2 (L / s-m^2)	140 (5698)	140 (5698)	140 (5698)	145 (5907)	ASTM D4491
STANDARD ROLL SIZE Note: Special roll sizes available upon request.	4ft X 50ft	4ft X 50ft, 6ft X 50ft 6ft X 60ft, 6ft X 65ft	4ft X 50ft	4ft X 50ft	

TerraDrain Soil Strip Drain

TerraDrain strip drain is a prefabricated, high-flow drainage system that offers better drawdown of water than pipe while costing around 60% less to install. Terradrain strip drain consists of a formed polymeric core surrounded by a geotextile filter fabric. This multichannel structure provides significantly increased water flow.

The tough filter fabric covering prevents core clogging while allowing water entry through every inch of its surface. The core allows water to flow to designated drain exits.

TerraDrain® strip drain sizes

Thickness	Width	Length
1”	6” to 36“	100’

With a crush strength of 9,000 (kN/m^2), TerraDrain core easily withstands the pressures of backfilling and compaction during installation with no loss of flow area.

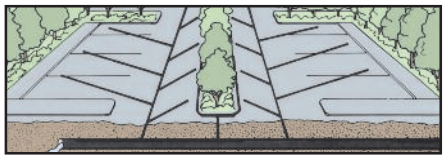
TerraDrain® strip drain properties

DRAIN Property	Test Method	Unit	TerraDrain Strip Drain
CORE			
Thickness	ASTM D 1777	in (mm)	1 (25.4)
Compressive Strength	ASTM D 1621	psf (kN/m²)	9,500 (455)
Installed Vertically	ASTM D 4716	gpm/ft (L/s.m)	82 (1300)
Installed Horizontally	ASTM D 4716	gpm/ft (L/s.m)	21 (260)
SYSTEM			
Performance Index			12,750

DRAIN Property	Test Method	Unit	TerraDrain Strip Drain
FABRIC			
Apparent Opening Size	ASTM D 4751	US Std Sieve (mm)	70 (0.21)
Water Flow Rate	ASTM D 4491	gpm/ft² (L/s.m²)	140 (5698)
Grab Tensile Strength	ASTM D 4632	lbs. (kN)	100 (0.45)
Grab Elongation	ASTM D 4632	%	50
Puncture Resistance	ASTM D 4833	lbs. (kN)	65 (0.30)

For golf course tees, fairways and green

For other athletic fields or recreational areas



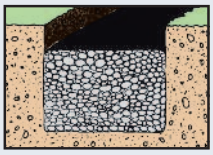
For parking areas and planters

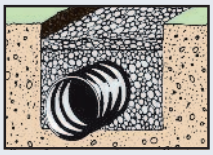
For road and highway drainage

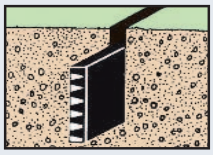
For residential and commercial properties

Standard TerraDrain® strip drain fittings

Terradrain vs. alternate drains



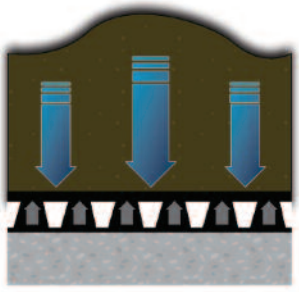




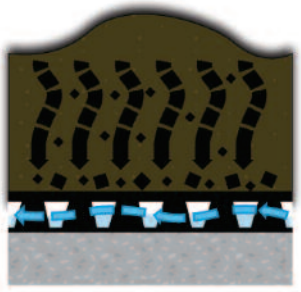
	FRENCH DRAIN	PIPE DRAIN	STRIP DRAIN
PIPE	NOT REQUIRED	4" MINIMUM	NOT REQUIRED
FABRIC	YES	YES	ALREADY ON CORE
STONE OR SAND	YES	YES	NOT REQUIRED
BACKHOE	YES	YES	NOT REQUIRED
TRENCHER	NO	NO	2" TRENCHER
DUMP TRUCK	YES	YES	NOT REQUIRED
PICKUP	YES	YES	YES
LABORERS	3 MINIMUM	3 MINIMUM	1
TRENCH WIDTH	12" MINIMUM	12" MINIMUM	2"
BOTTOM LINE	—	—	**PROFIT**

Design Consideration's

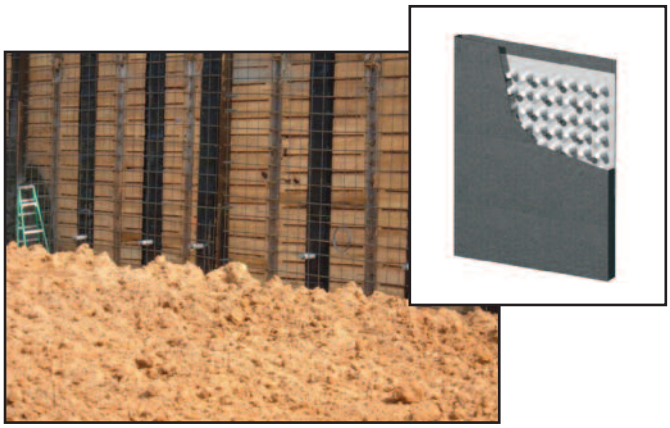
WATER FLOW RATE:
Volume of fluid that passes through the core in a specific amount of time



CORE COMPRESSION:
Maximum compressive stress the formed core can withstand without failure.

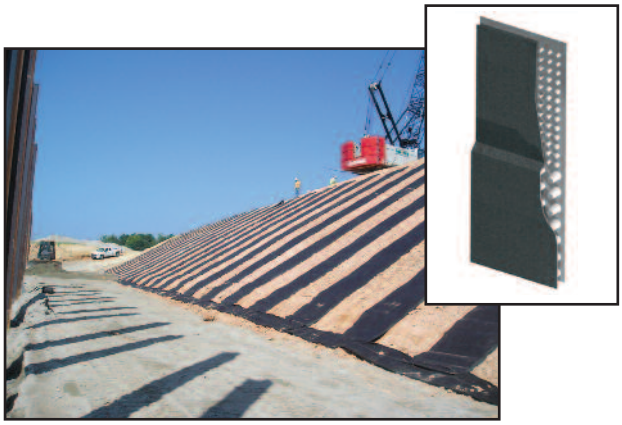


FILTER FABRIC:
The mechanical separation of the soil particles from the water entering the core.



Chimney Drains

Chimney Drains are constructed by fully wrapping a special width perforated polymeric drainage core with a nonwoven filter fabric. They are typically installed at spaced intervals in vertical wall applications to relieve hydrostatic pressure or enhance installation ease. The fabric retains soil particles while allowing water to freely enter the flow channel from one side, leading to designated drainage exits. Chimney drains are available in 12'', 16'', and 24'' widths. Please contact us for further information



Combination Drains

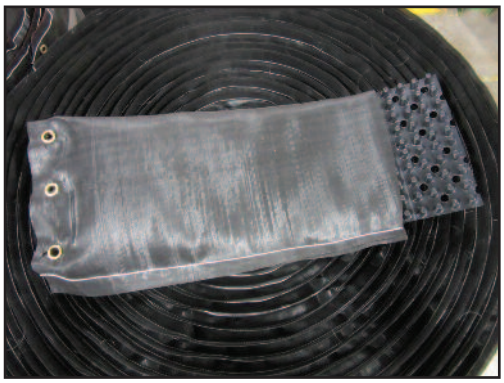
Combination Drains function as a direct replacement to costly perforated pipe and stone systems. They are constructed using a formed core design specifically to transition water collected from sheet drains into a high flow collection system. We offer a solid core option that is designed for single sided drainage as well as a perforated core option that is designed for double sided drainage applications.

terrafix® Erosion 5 stripdrain

Erosion 5 Stripdrain is a prefabricated, high flow, low fines drainage system, specifically designed to be used in underground mining applications, and retaining wall systems. Erosion 5 Stripdrain consists of a formed polymeric core surrounded by a monofilament filter fabric. The fabric allows water to pass into the core while restraining solid particles which might clog the core. With a crush strength of 8,000 psf the core of the Erosion 5 Stripdrain easily withstands the pressures of hydraulic backfill. The multichannel structure of the formed polymeric core provides high water flow. The tough filter fabric prevents clogging and resists tearing on the rough surface of blast hole stopes.

Application:

· Cut and fill stope drainage
· Vertical blast hole stope drainage
· General mine drainage applications



Advantages:

· Very high compressive strengths
· High flow rates
· Reduction in passed fines by as much as 1000% over conventional products
· High strength filter fabric is resistant to tear
· Surface area is twice that of a 4'' perforated pipe.
· Backfill sets faster.
· Stripdrain and been tested and used by leading North American mining companies.

Erosion V Stripdrain Specifications

DRAIN PROPERTIES:

Compressive strength, PSF	8,000	ASTM D1621
Flow capacity, gpm/ft of width	30	ASTM D4716
Thickness, inches	12	
Available widths, inches	6, 12, 18, 24, 36 & 48	
Available lengths, feet	50, 100, 150	

FABRIC PROPERTIES:

Grab tensile strength, lbs	390/280	ASTM D4632
Puncture strength, ibs	150	ASTM D4833
Mullen burst, psi	550	ASTM D3786
Water flow rate, gpm/ft	130	ASTM D4491

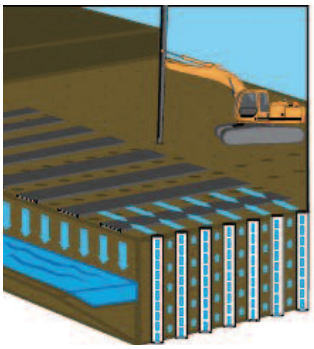
Applications

Civil Site / Structures

- Embankments
- Tunnel Drains
- Cut-off Drains
- Under Slabs
- Landfill Caps
- Perimeter Drains
- Pond and Channel Liners

Transportation

- Bridge Abutments
- Highway Edge Drains
- Soil Consolidation
- Concrete Lined Channels



Soil Consolidation

- Dams
- Mining Wastes
- Bridge Overpasses
- Seaports and Airports
- Railway Embankments
- Highway Embankments

Landscape

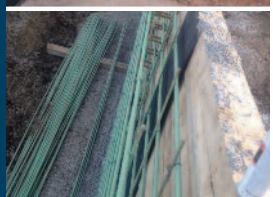
- Playgrounds
- Retaining Walls
- Curb and Edge Drains
- Brick and Stone Patios
- Lawn and Natural Turfs

Commercial Building

- Planters
- Plaza Decks
- Parking Decks
- Perimeter Drainage
- Under Slabs and Vertical Walls

Residential / Athletic Fields

- Water Collection from surrounding soil
- Synthetic and Natural Turf



terrafix®

North America's leader of complete geosynthetic solutions

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.

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.

TerraFort® is a high performance RSS (retained soil system) wall. TerraFort Panel Walls combine the best in reinforced concrete durability and geogrid/soil reinforcement. The soil and the reinforcement become an integral unit providing a stabilized block that functions as a gravity wall. TerraFort® uses Uniaxial HDPE (high density polyethylene) Geogrids. These geogrid layers work to stabilize the backfill material and provide complete resistance to corrosion as they contain no metallic materials. The use of polymer reinforcement allows the successful design of full height panels up to 10m. Full height panels allow for easy and fast installation. The precast concrete used in TerraFort® also allows the opportunity to design aesthetically pleasing retaining walls and are custom made to meet specific project requirements.

FLEXICRETE® is an articulated concrete block (ACB) revetment system consisting of a matrix of solid precast concrete blocks connected together to form continuous inter-connected areas which can be used for a variety of applications. The innovative design provides the system the flexibility to conform to the subgrade movement and grade changes while offering long term erosion control.

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.

terrafix® geosynthetics inc.

455 Horner Avenue
Toronto, Ontario • M8W 4W9

Telephone (416) 674-0363
Fax (416) 674-1159

To view our complete product line visit us at www.terrafixgeo.com

October 2015