

GEO PRODUCTS, LLC

GEOCELL MANUFACTURER
GEOSYNTHETICS SUPPLIER



PRODUCT COLLECTION

EnviroGrid® Geocell
Cellular Confinement System

EnviroWall™
Retaining Wall Block

EnviroGuard™ Liner
Geomembrane

Concrete Canvas®
Concrete on a Roll™

WWW.GEOPRODUCTS.ORG

ENVIROGRID®

GEOCELL

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SPECIFICATION
SHEET

CONTACT

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Developed in the late 1970's by The U.S. Army Corps of Engineers and manufactured by Geo Products since 1990, geocell cellular confinement has been used worldwide as a solution to soil stabilization issues.

EnviroGrid® geocell is made by ultrasonically welding plastic strips made from 100% virgin HDPE resin to form a honeycomb-like structure.

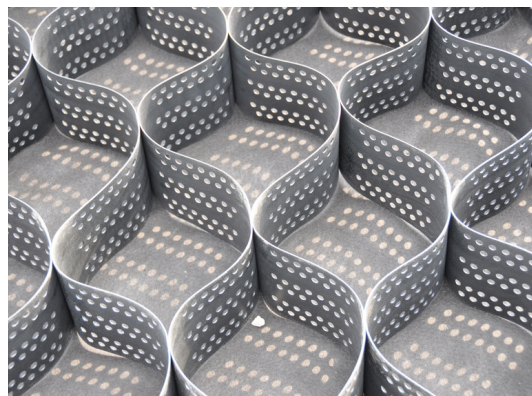


ENVIROGRID® GEOCELL | CELLULAR CONFINEMENT SYSTEM

EnviroGrid® makes it possible to construct sustainable roads over soft soils. By boosting the weight bearing ability of the rolling course, geocell helps prevent rutting and erosion in high-traffic areas. The amount of infill material is reduced and also allows for locally available aggregate, with less maintenance required over time.

SUB-GRADE IMPROVEMENT
HEAVY LOAD SUPPORT
INCREASED INFILL STABILITY

ACCESS ROADS | HAUL ROADS | RIG PADS



PANEL SIZING

ENVIROGRID® GEOCELL

There are various cell apertures or sizes as well as cell heights offered. The sizing of material is dependent on the specific application for which the product is being used. EnviroGrid® is packaged and shipped in collapsed panels for ease of shipping and handling, and are installation-ready.

CELL APERTURES:

EGA 20 EGA 30 EGA 40



CELL HEIGHTS:

3" 4" 6" 8"



ACCESSORIES:

ENVIROCLIP™ TWIST ANCHOR
ENVIROLOCK PANEL CONNECTION



*Above are the typical cell dimensions that are offered. Custom cell heights can be manufactured for specific projects.

CERTIFIED FIELD TESTING

Large-scale performance testing of all EnviroGrid® products were conducted by a third-party national lab to verify its true field performance. Throughout a series of cyclical load plate tests under various pressures to simulate rolling course traffic, measurements were taken throughout the four tests below.

CYCLIC STRESS AT SUB-BASE	EXTENDED CYCLIC AUTOMATED PLATE LOAD	INFILL MATERIAL DEFORMATION	STATIC STRAIN MODULUS
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INTERNAL CAPABILITIES

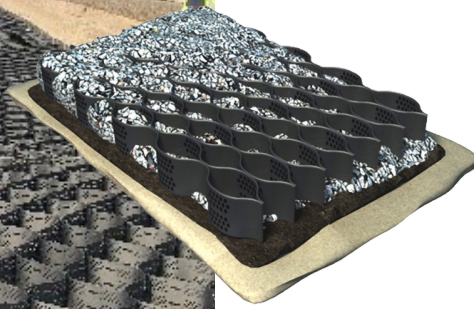
DESIGN & ENGINEERING SUPPORT

- Build-A-Spec Generator Tool
- Installation Support
- Design Calculators
- Specific Cad Details
- Case Studies/Pictures/Videos

www.geoproducts.org/technical-design

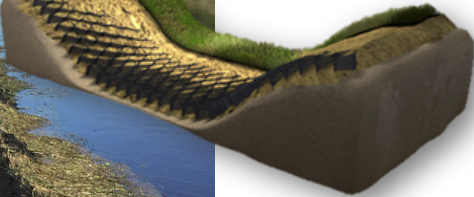


BASE STABILIZATION



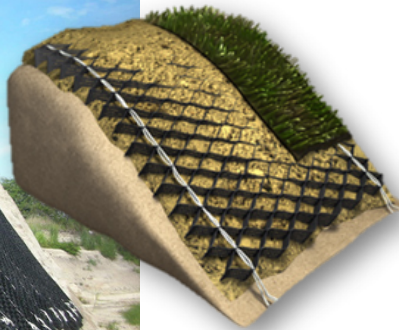
The expanded panels act as a large mat, distributing applied loads over an extended area. The three-dimensional cells increase strength and stiffness of the infill, which boosts their weight-bearing capabilities and allows for the use of permeable aggregates.

CHANNEL PROTECTION



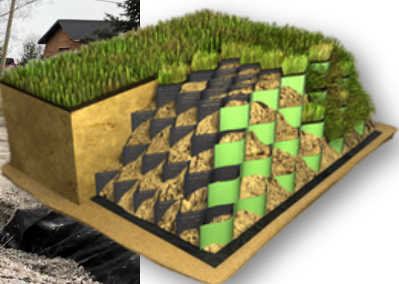
EnviroGrid® is successful at protecting channels by counteracting various flow velocities. It can be laid directly on the slope and properly anchored. Based on the channel characteristics, EnviroGrid® can be filled with angular rock, vegetated soil, or concrete. Geo Products offers the needed anchoring for the system's integrity.

SLOPE EROSION CONTROL



EnviroGrid® placed on slopes will hold infill material in place. The cell walls slow the flow of water down the slope or in areas affected by wave action, reducing the formation of rills, a major cause of soil erosion. Depending on the site specific application, EnviroGrid® can be filled with angular rock, concrete or native soils.

RETAINING WALLS



In very steep slope applications, soils can be retained with a vertical wall structure. Filled with local soils, EnviroGrid® can be used in both cut and fill situations by holding the soil in place and providing drainage throughout the structure. The outer cells can be vegetated, providing an environmentally pleasing look.

PRODUCT BENEFITS

SOIL STABILIZATION APPLICATIONS

MINIMIZE MAINTENANCE

Take control of high-traffic areas by installing EnviroGrid® to prevent erosion and formation of potholes.

REDUCE INFILL MATERIAL

EnviroGrid® allows the use of local infill material and reduces material needed by 2/3, reducing costs even more.

MAXIMIZE STABILITY

The high-strength cell walls increase strength and stiffness of the infill material, which boosts their weight-bearing capabilities.



SOIL STABILIZATION | CASE STUDY

Devon Energy was seeking a cost-effective yet sustainable way to construct haul roads over soft, native soils with poor load-bearing capabilities. The ability to use less expensive on-site material to build the roads while still supporting heavy loads under these conditions were the primary benefits of using EnviroGrid® over alternative methods.

The roads were graded and compacted and the EnviroGrid® panels were installed over a non-woven geotextile fabric. EnviroGrid® was filled with local sands, compacted and ready for traffic. EnviroGrid® provided a reliable system to construct the haul roads over the existing soft soils using locally available infill material. The confinement system keeps the non-cohesive material in place and provides stability to once poor load bearing material.

Please call us at **281.820.5493** or visit our website **www.geoproducts.org** for full & preliminary design support, CAD drawings, additional detailed case studies and more information.



GEOMEMBRANE

ENVIROGUARD™



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ENVIROGUARD™ PRE-FABRICATED PADS



EnviroGuard™ Liner, a division of Geo Products, specializes in offering custom-fabricated polyethylene geomembrane for liner applications. Our geomembranes are custom fabricated in-house with superior quality control standards, packaged, and ready to be installed immediately.

PIT LINERS
MINING OPERATIONS
SECONDARY CONTAINMENT
TEMPORARY & RAIN COVERS
WATERSHEDS

ENERGY | INDUSTRIAL | ENVIRONMENTAL | MINING



PRODUCT BENEFITS

PRE-FABRICATED PANELS

**MAXIMIZE
EFFICIENCY**

**CONSISTENT
SEAMS**

**REDUCE
COSTS & TIME**

PRODUCTS

PRE-FABRICATED LINERS

- Increased Design Flexibility
- Tailored to Project Specifications
- Factory-Seamed for Greater Strength
- Seamless Installation

FABRICATION SERVICES

HDPE & LLDPE
12MIL - 80MIL
ROLL STOCK | LINERS

INSTALLATION SERVICES

On-site seam welding with the latest equipment and technology is offered and backed by over 50 years of combined experience in field installation. Our team of experts are available to support your next installation.



ENVIROWALL™

A photograph of a white retaining wall with green plants growing in the pockets. The wall is made of interlocking blocks, and the plants are a mix of green leafy varieties and some with small yellow flowers. The background is a solid light green color.

RETAINING WALL BLOCKS

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ENVIROWALL™

RETAINING WALL BLOCKS

LANDSCAPING

HOME
IMPROVEMENT

GARDENING

EnviroWall™ Blocks provide an aesthetic solution to managing grade changes and supporting vegetation for a variety of applications. Designed for ease of shipping, handling and installation, EnviroWall™ offers an array of benefits.

EASE OF SHIPPING & HANDLING



- Removable side rails allow blocks to be nested for transport efficiency and cost savings
- Lightweight at 2.5lbs each



DESIGN COMPONENTS

- Made in the USA
- Allows use of compost sock for additional erosion control
- Construct walls up to 5' tall with little to no tools or equipment

VEGETATION SUPPORT



- Designed with holes for roots to grow through the system, maximizing stability.
- Able to support various vegetation and plant life

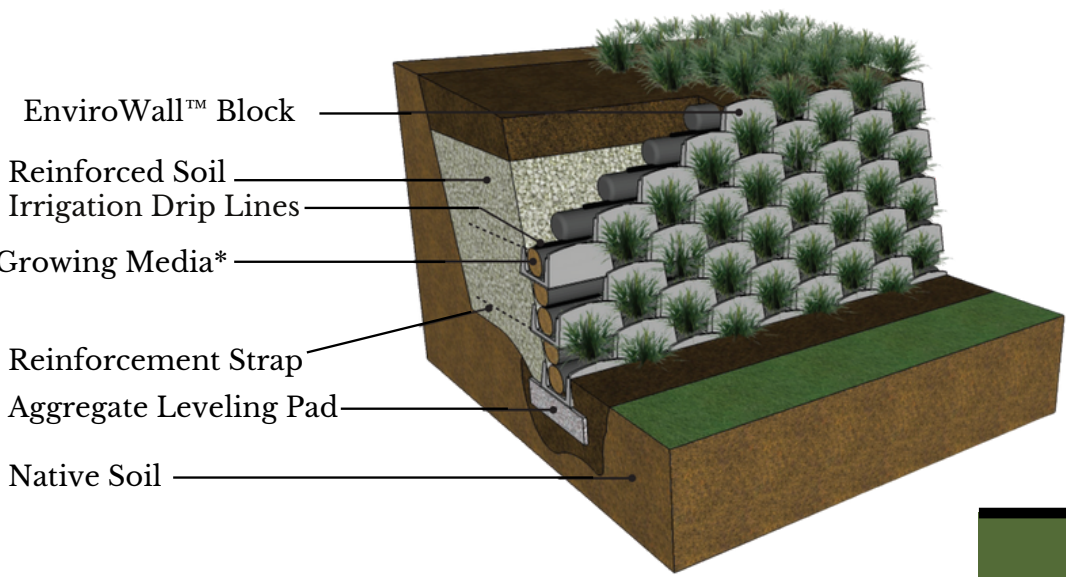


CARBON FOOTPRINT

- Able to calculate carbon footprint when using compost that is organic, mature, free of weeds and debris



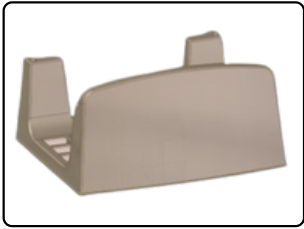
The EnviroWall™ Blocks compose a vertical living wall system that provides a front face to existing structurally sound slope backgrounds. The technology and design of each block allows vegetation to flourish within the structure, making the system visually appealing. EnviroWall™ is not only environmentally compliant, but is simple to handle, install, and maintain.



AVAILABLE COLORS

GREEN	GRAY
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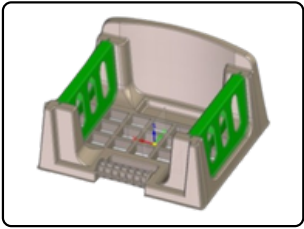
*Able to be filled with loose soil or compost sock.



**LIGHTWEIGHT
DESIGN**



**REMOVABLE
SIDE RAILS**



**STACKABLE
PIECES**



Each EnviroWall™ block has been rigorously tested in engineering labs and proves 5-times stronger than the service life of alternative slope facings that structures under five feet would generally require.

FLOWERBEDS | LANDSCAPE | DRIVEWAYS | GARDENS



CONCRETE CANVAS®

CONCRETE ON A ROLL™

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CONCRETE
CANVAS® USA

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CONCRETE ON A ROLL™

Concrete Canvas® (CC) is a Geosynthetic Cementitious Composite Mat (GCCM) that provides an environmentally friendly and cost-effective alternative to traditional concrete products. Able to be installed directly over terrain, CC is simply activated by spraying the system with water, significantly lowering the product and labor costs typically associated with such projects.

CC is used for a variety of purposes including civil construction and environmental applications such as:

CULVERTS / CANALS
MINE CHANNEL LINING
STORMWATER MANAGEMENT
DRAINAGE SUPPORT
ENERGY DISSIPATION

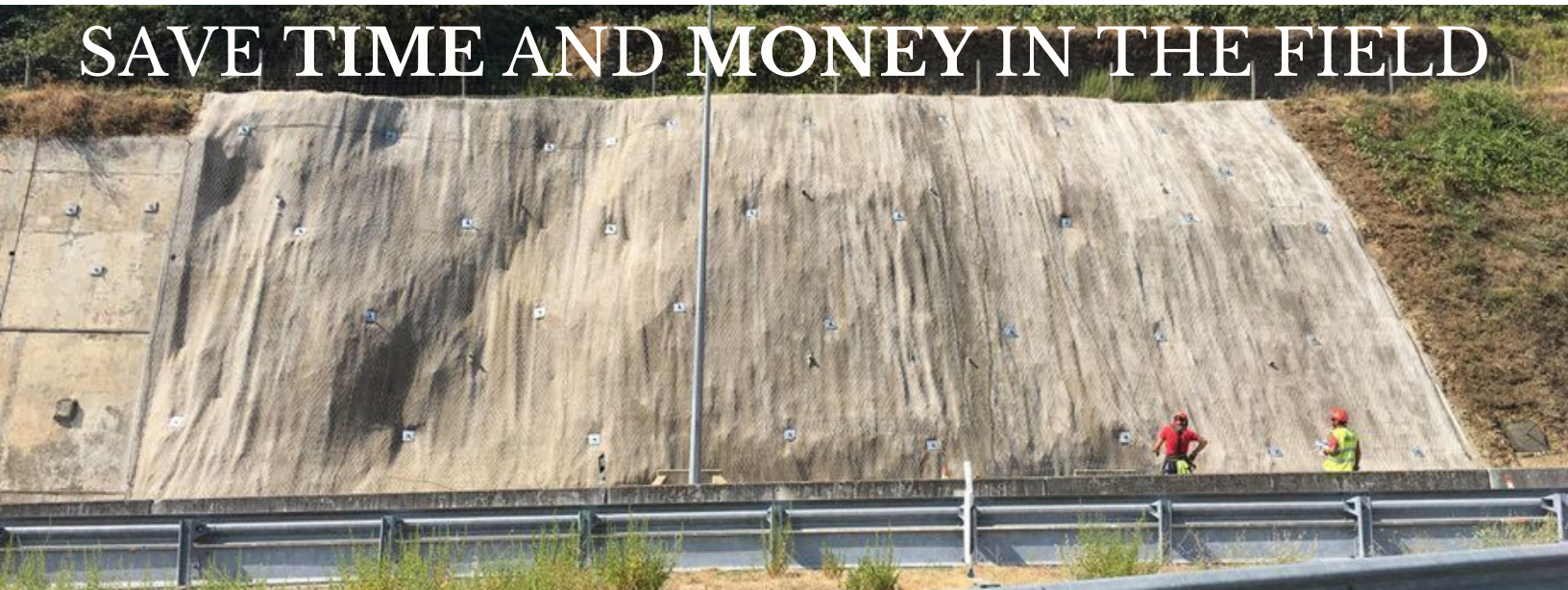
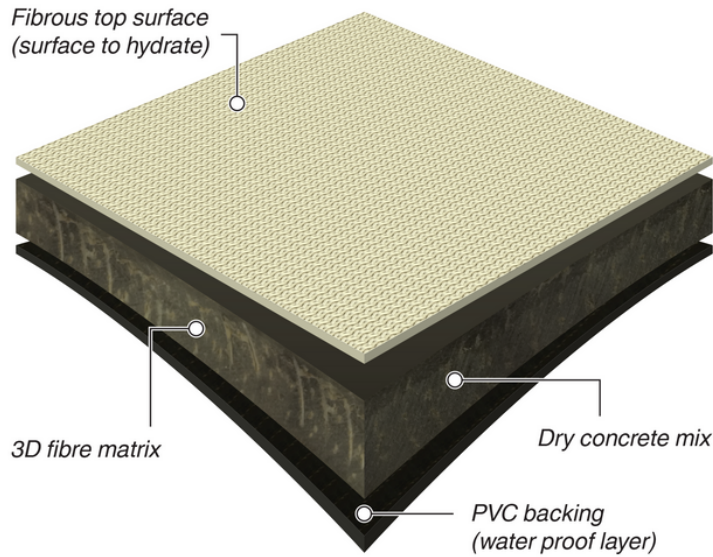


Concrete Canvas is a Geosynthetic Cementitious Composite Mat (GCCM) that is typically used to replace conventional concrete for remediation and lining applications.

THERE ARE 3 MAIN PRODUCT TYPES:

- CC5™ | 5mm thick
- CC8™ | 8mm thick
- CC13™ | 13mm thick

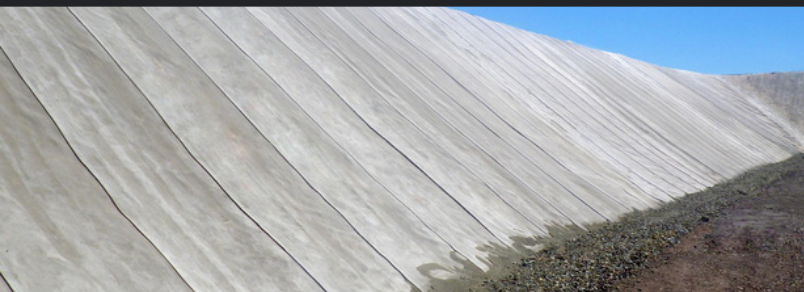
All products are able to be cut and tailored to suit the custom dimensions and specifications of any project.



SAVE TIME AND MONEY IN THE FIELD

10x Faster to Install than Conventional Concrete
Up to **120 Years** of Performance Life
Use up to **95%** less Material

- Drape characteristics allow CC to closely follow the profile of the lined terrain
- UV-resistant and twice as abrasion resistant as standard concrete
- Fiber-reinforced to prevent cracking, absorb impact, and provide stable failure mode





SLOPE PROTECTION | CASE STUDY

Concrete Canvas® was used to provide slope protection in Rossville, TN. A rail intermodal facility had an existing steep slope armored with riprap which had deteriorated over time. An alternative solution was needed that would not only protect the slope, but provide protection to its surface and prevent saturation.

CC was chosen by the client who determined that it would provide the slope protection required while reducing overall maintenance and regulatory concerns. The material was laid longitudinally down the slope, and subsequent layers were overlapped and jointed using percussion earth anchors. In total, 30,000 SF were installed at rates of 1,827 SF per day, providing an efficient and quick installation.



GEO PRODUCTS | CONCRETE CANVAS, USA

Contact us for additional product information, installation procedures, and more.

WWW.GEOPRODUCTS.ORG/CONCRETECANVAS

GEO PRODUCTS, LLC

HOUSTON, TEXAS

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ENVIROGRID® GEOCELL
ENVIROWALL™ BLOCK

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SUPPLIER

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CONCRETE CANVAS®

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