GEO PRODUCTS, LLC

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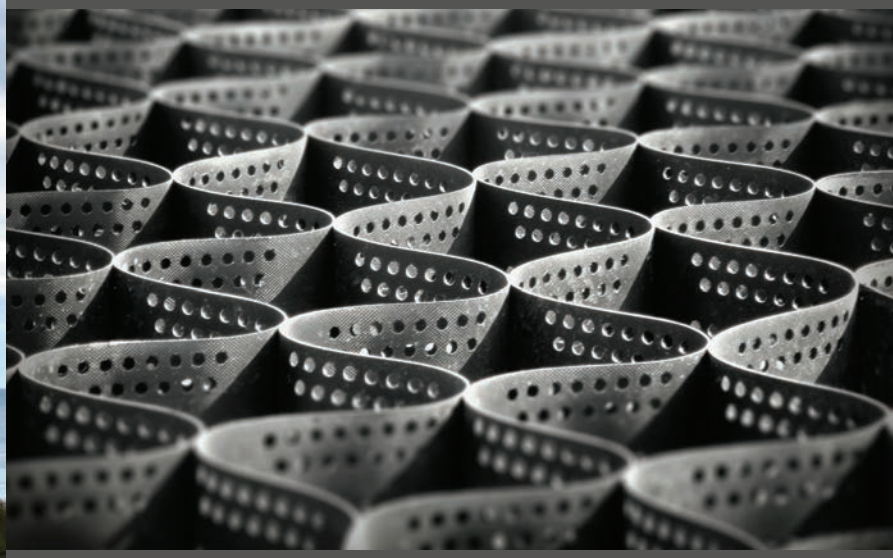


MANUFACTURING

ENVIROGRID® GEOCELL

SINCE 1990

GEO products

GEO PRODUCTS, LLC

ENVIROGRID® GEOCELL

CELLULAR CONFINEMENT SYSTEM

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.

INDUSTRIES SERVED

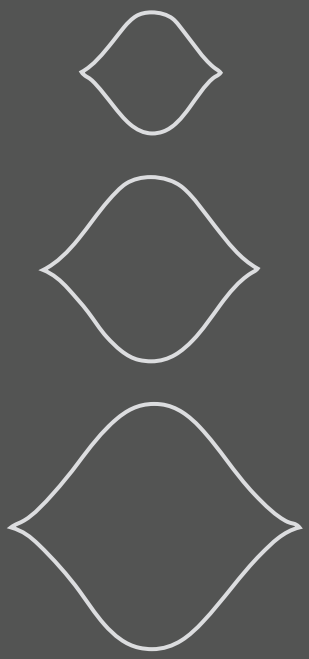
- TRANSPORTATION
- PORTS
- WASTE MANAGEMENT
- MINING
- STORMWATER MANAGEMENT
- OIL & GAS
- RAILWAY
- INFRASTRUCTURE
- ENERGY
- PARKS & RECREATION

CELL SIZES

EGA 20
10.2in x 8.8in
(259mm x 224mm)

EGA 30
12.6in x 11.3in
(320mm x 287mm)

EGA 40
20in x 18.7in
(508mm x 475mm)



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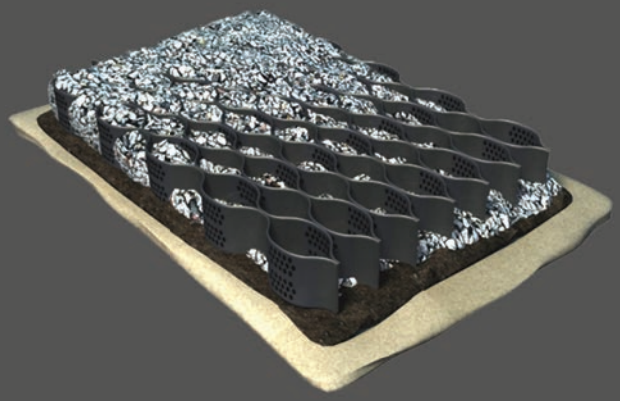
made in USA

NSF Registered to ISO 9001

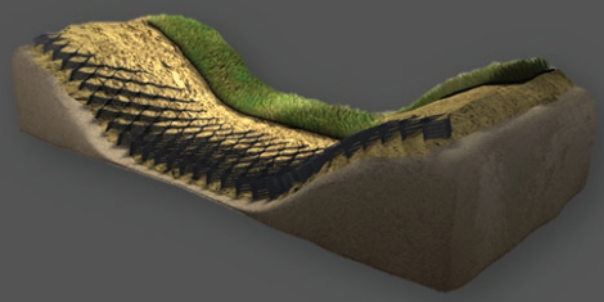
GPEF Rev 1/2020

APPLICATIONS



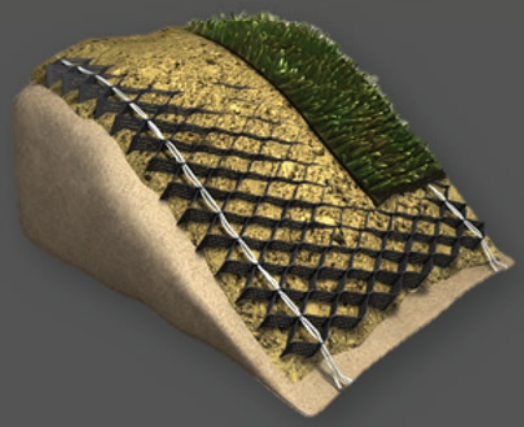
BASE STABILIZATION

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.



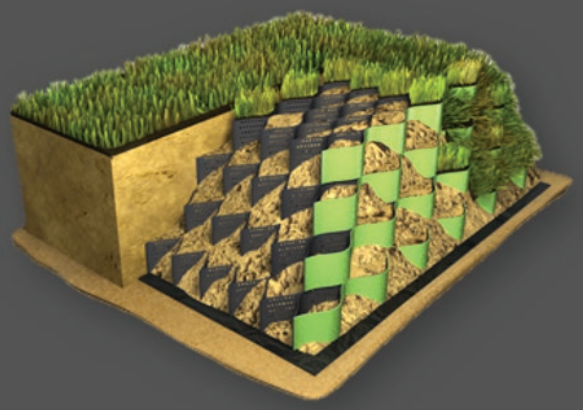
CHANNEL PROTECTION

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.

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.

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ENVIROGRID® GEOCELL

SPECIFICATIONS

EnviroGrid® is a three dimensional cellular confinement system that provides confinement and reinforcement to granular material. Therefore, it can be used for load support, erosion control, slope protection and retaining wall construction. The EnviroGrid® sections are manufactured from 58 strips of HDPE, resulting in a section length of 29 cells. Each strip is the approved width and 142 inches (3.6m) in length.

MATERIAL PROPERTIES	TEST METHOD	UNIT	TEST VALUE
Polymer Density	ASTM D 1505	lb/ft^3 (g/cm^3)	58.4 - 60.2 (0.935 - 0.965)
Environmental Stress Crack Resistance	ASTM D 5397	hours	>400
Environmental Stress Crack Resistance	ASTM D 1693	hours	6000
Carbon Black Content	ASTM D 1603	% by weight	1.5% minimum
Nominal Sheet Thickness[1] before texturing	ASTM D 5199	mil (mm)	50 (1.27) -5%,+10%
Nominal Sheet Thickness[1] after texturing	ASTM D 5199	mil (mm)	60 (1.52) -5%,+10%

*Polyethylene strip shall be textured with a multitude of rhomboidal (diamond shape) indentations. The rhomboidal indentations shall have a surface density of 140 to 200 per in^2 (22 to 31 per cm^2).
[1] The Nominal Sheet Thickness is an average thickness of the sheet, taken from the mean of 10 readings.

Product	Nominal-Expanded Cell Size (width x length) in (mm)	Nominal-Expanded Cell Area in^2 (cm^2)	Nominal-Expanded Section (width x length) ft (m)	Nominal-Expanded Section Area ft^2 (m^2)	Minimum-Expanded Section (width x length) ft (m)	Maximum-Expanded Section (width x length) ft (m)	Cell Depth in (mm)	Seam Peel Strength lbf (N)	Precent Cell Wall Open Area (%)	Seam Hang Strength
EGA20	10.2 x 8.8 (259 x 224)	44.8 (289)	8.4 x 21.4 (2.56 x 6.52)	180 (16.7)	9.2 x 19.4 (2.8 x 5.9)	7.6 x 23.3 (2.3 x 7.1)	3 (75)	240 (1060)	16 ± 1%	A 4 in (102mm) weld joint supporting a load of 160 lbs (72.5 kg) for 30 days minimum or a 4 in (102mm) weld joint supporting a load of 160 lbs (72.5 kg) for 7 days minimum while undergoing temperature change from 74°F (23°C) to 130°F (54°C) on a 1 hour cycle.
							4 (100)	320 (1420)	11 ± 1%	
							6 (150)	480 (2130)	16 ± 1%	
							8 (200)	640 (2840)	11 ± 1%	
EGA30	12.6 x 11.3 (320 x 287)	71.3 (460)	8.4 x 27.4 (2.56 x 8.35)	230 (21.4)	9.2 x 24.8 (2.8 x 7.6)	7.6 x 30.0 (2.3 x 9.1)	3 (75)	240 (1060)	16 ± 1%	
							4 (100)	320 (1420)	11 ± 1%	
							6 (150)	480 (2130)	16 ± 1%	
							8 (200)	640 (2840)	11 ± 1%	
EGA40	20 x 18.7 (508 x 475)	187 (1206)	8.4 x 45 (2.56 x 13.72)	378 (35.14)	9.2 x 40.9 (2.8 x 12.5)	7.6 x 49.7 (2.3 x 15.1)	3 (75)	240 (1060)	16 ± 1%	
							4 (100)	320 (1420)	11 ± 1%	
							6 (150)	480 (2130)	16 ± 1%	
							8 (200)	640 (2840)	11 ± 1%