MATERIAL: The polymer used to manufacture EnviroGrid shall be virgin, non-thermally degraded high-density polyethylene. The EnviroGrid strips shall conform to the following requirements:

Environmental Stress Crack Resistance ASTM D-1693 3000 hrs. minimum

SEAM STRENGTH:
Seam Hang Strength – A 102 mm (4.0 in.) weld joint supporting a load of 72.5 kg (160 lbs.) for 30 days minimum or a 102 mm (4.2 in.) weld joint supporting a load of 72.5 kg (160 lbs.) for 7 days minimum while undergoing temperature change from 23°C (74°F) to 54°C (130°F) on a 1 hour cycle.

ASSEMBLY: Envirogrid is manufactured in three cell sizes

Available in solid or perforated cell wall.

Geo Products provides this information only as an accommodation to our customers. No warranty or other representation regarding the suitability of the application procedure is made due to the fact that each installation has specific requirements that may not have been considered in this generalized procedure. Geo Products makes no warranties or representations regarding the suitability of its EnviroGrid for specific uses or applications. Our liability is limited to furnishing, without charge, a replacement for any EnviroGrid section that is proven defective under normal use and service.
It is well known that an ideal soil material for use in civil engineering applications is one that compacts well and still drains water freely. The problem is that the better draining soils are difficult to confine in place. The Geo Products EnviroGrid provides the means to confine good draining soils.

Although confining soil materials have many benefits, it is not always easy or inexpensive to accomplish. The U.S. Army Corps of Engineers (USACE) experimented with a variety of methods that could be used to confine sand during an amphibious assault. Their solution is a product in which strips of plastic are welded together such that, when expanded, the welded strips form a rectangular panel made of individual cells that resemble a honeycomb. Today, this same concept is employed by civil engineers all over the world to confine onsite materials.

**GROUND STABILIZATION**

Use of EnviroGrid can significantly reduce the amount and/or quality of aggregates required to stabilize a poor load bearing soil. The cell walls keep the aggregates from being pushed away from the applied load. Because the filled cells are connected together, the panel acts like a large mat. Applied loads are spread over an extended area instead of directly at the point of contact. Due to the high costs and environmental concerns of mining quality aggregates and, in many cases, the significant expense of hauling aggregates over long distances, engineers are specifying EnviroGrid to save costs in many ground stabilization projects.

**SLOPE EROSION PROTECTION**

An EnviroGrid placed on a steep slope holds the fill material in place. Also, the cell walls slow the flow of water down the slope. This action reduces or eliminates the formation of rills which are a major cause of soil erosion. In addition, water trapped in the cells will seep down through the fill soil, which promotes deep root growth. EnviroGrid may also be installed on slopes subject to wave action. With EnviroGrid, small riprap or rock that would normally be washed away, can be used to control wave action erosion. A blanket of rock protects the shoreline, creates an attractive facia and restricts the growth of vegetation that can provide a home for rodents and insects. In addition, EnviroGrid is an economic and aesthetic alternative to gabion baskets.

**CHANNEL WALL PROTECTION**

Typically, engineers specify the use of large riprap to control erosion of channel walls. EnviroGrid provides three major benefits for channel wall erosion protection. In channels where water velocities are under 6 ft/sec, EnviroGrid allows the placement of soil infill with grass cover or small rock on slopes that would normally be too steep to hold the rock. When velocities exceed 6 ft/sec, EnviroGrid is filled with concrete. The EnviroGrid provides a flexible form that holds the concrete on steep channel slopes. The cells create small concrete blocks that can adjust to irregularities on the slope face without cracking. Pullout tests have proven that the blocks will not "lift" out of the cells.

**EARTH RETENTION STRUCTURE**

In very steep slope applications where it is not feasible to place the cell panels on the slope face, soils can be retained with an EnviroGrid vertical wall structure. An EnviroGrid section filled with local soils is used in both cut and fill situations. The cells not only hold the soil in place, they also provide drainage throughout the structure. An EnviroGrid gravity wall is constructed by filling the cells with onsite soils. An additional benefit of an EnviroGrid facia is that the outer cells can be vegetated which gives the wall an environmentally pleasing look that also reduces water flow at the face of the wall.
The polymer used to manufacture EnviroGrid shall be virgin, non-thermally degraded high-density polyethylene. The EnviroGrid strips shall conform to the following requirements:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST METHOD</th>
<th>TYPICAL VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymer Density</td>
<td>ASTM D-1505</td>
<td>.941 - .960 g/cc minimum</td>
</tr>
<tr>
<td>Strip Thickness</td>
<td>ASTM D-5199</td>
<td>1.25 mm ± 5%</td>
</tr>
<tr>
<td>Carbon Black Content</td>
<td>ASTM D-1603</td>
<td>1.5% minimum by weight</td>
</tr>
<tr>
<td>Environmental Stress Crack Resistance</td>
<td>ASTM D-1693</td>
<td>3000 hrs. minimum</td>
</tr>
</tbody>
</table>

SEAM STRENGTH:
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ASSEMBLY: Envirogrid is manufactured in three cell sizes:

- EGA2O (21.4’ x 21.4’ (6.52m x 6.52m))
- EGA3O (21.4’ x 27.4’ (6.52m x 8.35m))
- EGA4O (21.4’ x 45’ (6.52m x 13.72m))

EnviroGrid panels can be provided in cell heights of 2” (50 mm), 3” (75 mm), 4” (100 mm), 6” (150 mm) and 8” (200 mm). Standard panels are constructed of 58 strips with the dimensions above.

Custom sizes and colors are available.

Available in solid or perforated cell wall.