

# AGA GEOCELL

## SOIL CONFINEMENT/REINFORCEMENT WEB

AGA GEOCELL SUPPORTS A VIABLE LAYER OF TOPSOIL ON THE SLOPES AND BANKS OF ROADS, RAILWAYS RIVERS AND COASTAL AREAS ETC.



**AGA GeoCell** is a GeoCellular matrix of interconnecting polymer strips that form pockets to locate and strengthen the fill material. The polymer strips confine the filling material and provide a tensile strength, very effectively increasing the shear resistance and cohesion of the fill.

The **AGA GeoCell** strips are manufactured from high density polyethylene sheet. They are securely stitched at the joints with rot-proof nylon thread to provide a strength at least equal to the strip material. **AGA GeoCell** is available in depths of 100 mm and 200 mm and a GeoCell diameter of 350 mm. It is folded flat for transport and is expanded to form the full web area on site.



### **AGA GeoCell**

- ◆ is rot proof
- ◆ is lightweight
- ◆ is easy to handle
- ◆ has high tensile strength
- ◆ is unseen, thus environmentally friendly
- ◆ has high permeability which allows rain water to drain away
- ◆ allows the establishment of vegetation on impermeable membranes
- ◆ can provide protection against mechanical damage to underlying membranes

**AGA GeoCell** is normally black but it is also available in other colours on request. It can be produced in a range of other depths, GeoCell sizes and materials. **AGA GeoCell** is designed to retain the soil on banks where the slope angle is greater than the friction angle of the soil. By using **AGA GeoCell** used in conjunction with **AGA Cellmat** on steep slopes it is possible to both protect such slopes and also control surface erosion.

**AGA GeoCell** is supplied with inter-GeoCellular drainage holes to prevent saturation of the fill material.

#### **Panel dimensions: Slope stabilisation**

100 & 200 mm deep, 350 mm GeoCell diameter.  
6 m long x 3 m wide = 18 m<sup>2</sup>

#### **Access roads:**

**AGA GeoCell** vastly improves the bearing capacity of standard fill material. A 200 mm deep AGA GeoCell can provide similar foundation strength as 400 mm of crushed stone. **Huge potential savings in excavation and placement costs.**

#### **Panel dimensions: Basal reinforcement**

100 & 200 mm deep, 250 mm GeoCell diameter.  
6 m long x 2.5 m wide = 15 m<sup>2</sup>

#### **Revetments:**

**AGA GeoCell** forms a flexible revetment structure for the lining of ditches and water channels and may be filled with concrete or crushed stone. The web is also available with holes to attach to securing ropes.

## AGA GeoCell

### SOIL EROSION CONTROL WEB

**Basal reinforcement • Slope stability • Liner protection**

**AGA GeoCell** Using this inexpensive system it is possible to reduce foundation stone thickness by up to 50%. Laid over steep slopes the polymer strips provide a tensile force effectively increasing the cohesion of the material and acting as mini-weirs to reduce run-off and soil loss.



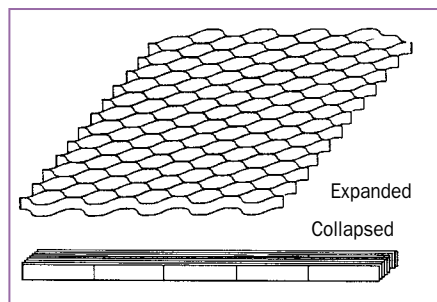
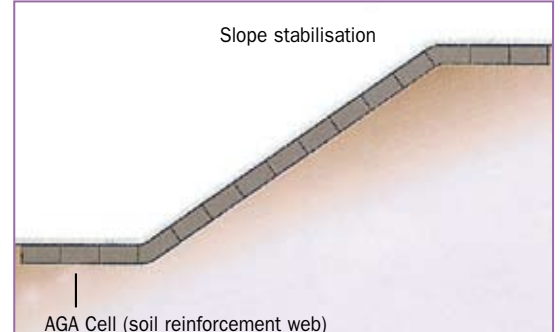
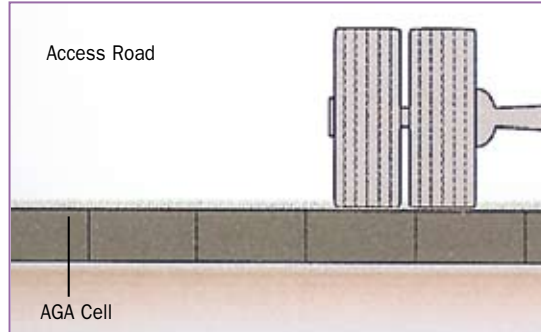
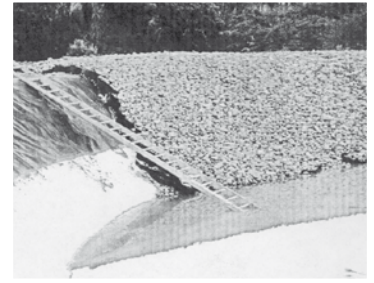
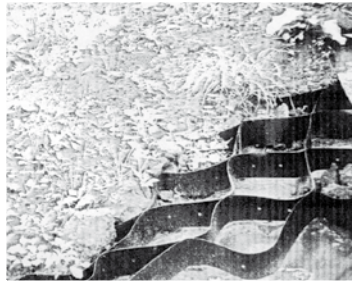
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CONCEPT TO COMPLETION

# AGAGEOCELL

## Some typical applications

- ▶ Protection and vegetation over spoil tips
- ▶ Reinforced grass surfaces for accesses roads, car parks, fire access etc.
- ▶ Basal support for block paving under heavy loading
- ▶ Sand dune stabilisation
- ▶ Ornamental ponds



Standard Properties:	Depth	100/200 mm
	Material	HDPE
	Web thickness	1.2 mm
	Colour	Black
		BSEN 964-1:1995
	Cell diameter: Stabilisation	350 mm
	Cell diameter: Basal reinforcement	250 mm
	Temperature Range	-30° to +60°C
	Material Tensile Strength	24 kN/m
		BSEN ISO 10319:1996
	Seam Tensile Strength	1.4 kN/100 mm
		BSEN ISO 10319:1996
	U.V. Stability	Excellent
	Standard Pin Length	450-600 mm
	Life Expectancy (inc. joints)	120 years
	Max Slope angle	70°
	<i>Allowable tolerances are +/- 10% of the typical.</i>	

Construction: **AGA GeoCell** is a GeoCellular structure of polymer strips securely stitched at the joints with nylon. It is folded flat for transport and expanded on site.

Chemical resistance: **AGA GeoCell** has exGeoCellent chemical resistance to a wide range of compounds normally found in the ground. When highly acid soils are encountered, **AGA GeoCell** with polyester thread can be specified. We will be pleased to advise on specific substances which may be found on brown field sites. **AGA GeoCell** has high resistance to UV light.

Design: Our technical department can offer advice and design suggestions for the most economic use of the material. Design assistance is provided for selection, detailing and installation at no charge to the specifier or end user.

Specification: **AGA GeoCell** is specified by the depth and GeoCell diameter. For example 100/350

Supply: Standard depth is as above but **AGA GeoCell** can be manufactured to order in any depth from 100 mm to 750 mm. Special lengths can also be manufactured to order.

Fixing: Steel pins are driven in at appropriate positions. For advice on site specific fixing please contact this office.

Weights: **AGA GeoCell** 100/350 18 kg/panel, 32 panels/pallet = approx 576 kg inc pallet  
**AGA GeoCell** 200/350 36 kg/panel, 17 panels/pallet = approx 612 kg inc pallet  
**AGA GeoCell** 100/250 20 kg/panel, 32 panels/pallet = approx 640 kg inc pallet  
**AGA GeoCell** 200/250 38 kg/panel, 17 panels/pallet = approx 646 kg inc pallet

Health and Safety: **AGA GeoCell** when used and laid in accordance with the manufacturers instructions, does not present a health hazard. No special precautions are necessary.

*Manufactured in accordance with the ISO 9002 quality assurance standard.*

The A.G.A. Group installation teams operate solely within the field of aquatic and bioengineering. We operate a policy of 'Best Practice' and are bound by the Code of Conduct of both the Institute of Fisheries Management and the Society of Biology. The A.G.A. Group will quote for the supply of materials, their installation or for 'turnkey' projects.

**A.G.A. is Quality assured to: ISO9001 : 2008 and ISO14001 : 2004**  
**Registered: Achilles Utilities Vendor Database No. 705965**



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