



Export Product Guide

A guide to
geosynthetic
products available
in export markets

abg | creative
geosynthetic
engineering

About ABG

ABG are a market leader in the development, manufacture and technical support of high performance geosynthetic solutions for use in a wide range of civil engineering and environmental projects.

Formed in 1988 and based in Meltham in the heart of the pennines, ABG has developed an excellent reputation for quality products and outstanding service.

The ability for rapid product development ensures that the most innovative, up to date and cost effective solution can be found for most engineering problems involving soil or water.

All ABG products are CE marked and approved for use by leading UK and international authorities. Technical support is provided by our well trained and experienced staff, many of whom are chartered engineers. This support extends to design, design confirmation, feasibility study, technical support and cost advice.

ABG encourages the use of cost saving, sustainable and environmentally friendly materials. In general our products are lighter and more compact than conventional materials, as well as being recyclable to help preserve natural resources.



Product Selector

This chart is provided as a handy guide to ABG’s range of products and some of their applications. It is by no means complete in the applications listed, so if your particular requirement is not included please contact our export sales department to discuss your project specific requirements.

	Page Number	Landfill Cap Drainage & Gas Collection	Landfill Basal	Leachate Collection	Capillary Break Layer	Subsurface Water Drainage	Leak Detection in Lining Systems	Structural Drainage	Waterproofing / Protection	Basement Drainage	Tunnel Drainage	Roof Deck Drainage (Green Roofs)	Landscape Drainage	Highway Drainage	Rail Track Drainage	Embankment Drainage	Topsoil Retention	Silt Control
Pozidrain	4-5	★	★	★	★	★			★					★				
Leakdrain	6						★											
Deckdrain	7					★		★	★		★	★	★					
Cavidrain Invert	8					★				★	★							
Cavidrain Liner	8										★							
Fildrain	9					★								★	★	★	★	
Roofdrain	9											★	★					
Erosaweb	10																★	★
Erosamat	10																★	★
Salt Break	10				★													
Rootline	10												★					

Further information on all the products and applications is available by visiting our website. Here you will find technical information and supplementary information such as product brochures, case studies and reference lists.



Pozidrain®

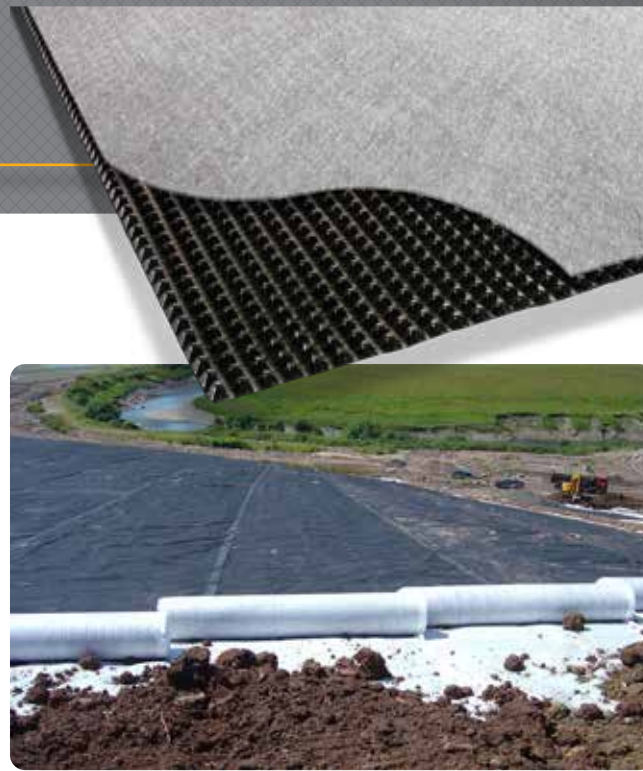
Pozidrain® is a preformed drainage and gas venting layer specifically designed as a replacement for traditional methods of construction utilising filter stone, offering better flow performance, lower environmental impact, reduction in site transport, easy installation and cost savings on the project.

Applications

Pozidrain® forms a strong, robust drainage layer that can be used in the collection of leachate and ground water in both landfill containment and cap drainage systems and also as a gas venting system for the collection and dispersal of landfill gases.

Manufacture and Composition

Pozidrain® consists of a HDPE cusped core bonded to a heat treated needle punched geotextile filter fabric. The geotextile is bonded to the core to prevent intrusion into, and blockage of, the drainage passages under the load action of the backfill material.



Pozidrain® Protector

Pozidrain Protector is developed specifically for use in landfill basal lining systems to collect and drain leachate, whilst providing protection to the geomembrane lining systems.

Applications

The wide width **Pozidrain Protector** drainage geocomposite creates more landfill volume by replacing the conventional drainage stone and offering reliable drainage properties through the factory produced drainage core.

Manufacture and Composition

It consists of **Pozidrain** bonded to a heavyweight, needle punched geotextile protector and offers a combination of drainage and geomembrane protection in a single product.

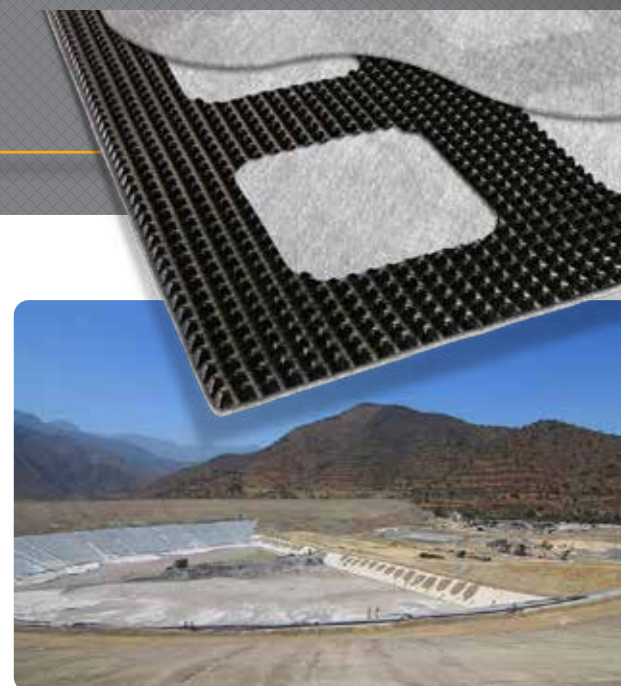


Pozidrain® G

Geocomposite for landfill cap drainage, gas-venting, ground water drainage and leachate management. Particularly useful on steep slopes where its core structure offers enhanced frictional performance, whilst providing protection to the lining system.

Applications

Pozidrain G geocomposite has a lattice structure core which offers superior interface friction performance on steep slopes. This has been confirmed in a series of direct shear tests which compared the performance of **Pozidrain G** against other conventional geocomposites.



Pozidrain® KL

Pozidrain KL incorporates a selvedge for jointing of adjoining rolls and to provide an all-in-one capping and leak detection layer for mining and landfill applications.

Applications

Pozidrain® can also be used as a capillary break layer in the restoration of contaminated land.

It is fast and easy to install and requires no specialist plant and only minimum training for the installation team.



Chemical resistance

Pozidrain® offers excellent resistance to leachate and other common chemicals.

Common Sizes

4, 6, 7, 12 or 25 mm thick x 4.4m wide x 25 to 150 m lengths.

Leakdrain®

Leakdrain® comprises a single cusped core with very high compressive strength performance. This high compressive strength combined with high in-plane flow capacity allows the flow of leachate and other particle laden liquids without the risk of clogging, even under very high loads.

Applications

The principal application of **Leakdrain** is as a leak detection layer for use within the basal lining of containment systems.

It is installed between the primary and secondary barrier forming the basis of an efficient leak detection system.

Leakdrain® will not only assist in identifying the presence of a leak, but also has sufficient capacity to collect the discharge and transport it to a collection point until the necessary repairs are made. **Leakdrain®** can be installed quickly and easily and requires no specialist plant and only minimum training for the installation team.

Manufacture and Composition

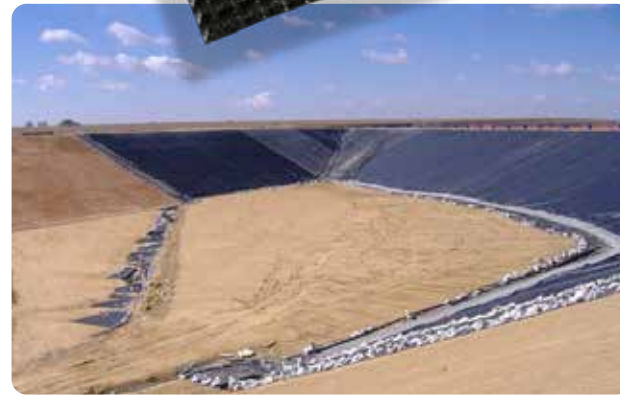
Leakdrain® consists of a high density polyethylene (HDPE) single cusped core.

Chemical Resistance

Leakdrain® offers excellent resistance to leachate and other common chemicals.

Sizes

3, 5 and 6mm thick x
2.2m width x 75 to 180m roll lengths.



Deckdrain®

Deckdrain® is a high performance geocomposite drainage layer that directly replaces granular drainage stone in a number of construction applications.

Structural Drainage

In structural drainage applications **Deckdrain®** forms a robust drainage system that is designed to relieve external water pressure from buried structures. It has many areas of application including within retaining walls, tunnels, roof gardens and buried tanks.

Deckdrain® may be laid horizontally or vertically in the construction and provides high flow capacity, along with the benefit of providing additional protection to waterproofing systems.

The use of **Deckdrain®** reduces the amount of excavation and enables site won materials to be used as backfill, thereby greatly reducing movement of materials to and from site.

Block Paving Drainage

Deckdrain® has been developed further for use in block paving drainage where its function is to collect and remove seepage water from the sand course laid below the paving. Without **Deckdrain®** the sand can easily become saturated and can liquefy under traffic loading, resulting in settlement and rutting. **Deckdrain®** provides a cost effective method of preventing this type of failure.

Chemical Resistance

Resistant to all common chemicals.

Sizes

4, 6, 7, 12 or 25 mm thick x
1.1m, 2.2 m and 0.915 m width x 25 or 50 m lengths



Cavidrain® Invert

Cavidrain® is a preformed cavity drainage system designed specifically to relieve water penetration from buried structures such as tunnels, basements and underground car parks. It is suitable for use in both new build and existing structures.

Tunnels

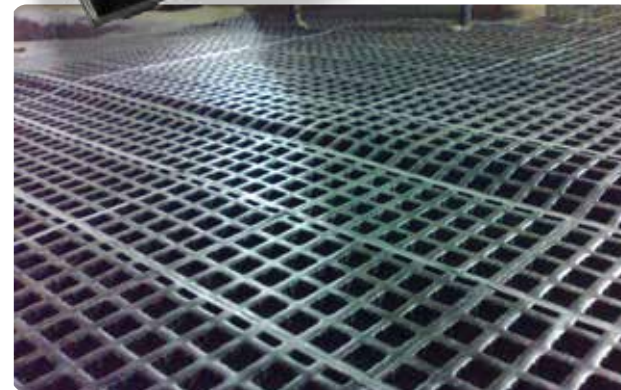
In tunnel construction **Cavidrain®** provides a drainage layer to collect infiltration water from behind tunnel linings.

Cavidrain® may be used alone or form part of a system incorporating waterproofing membranes. Typically the **Cavidrain®** is fixed to the excavated face of the tunnel and then shotcrete is applied to the back of the core forming the internal surface of the tunnel. **Cavidrain®** can be used in road and rail tunnels, mine-shafts and interceptor tunnels.

Basements

In basement waterproofing, **Cavidrain®** is designed as a waterproofing system that enables fast track construction by eliminating wet trades and by removing the waterproofing from the critical path. The high strength core is designed to withstand the imposed loads associated with wet concrete.

Once poured the concrete fills the back of the dimples and so, once cured, the ultimate load capacity is that of the concrete.



Cavidrain® Liner

Cavidrain® Liner is a combined drainage and waterproofing liner that is welded to form an integral waterproof system. The sheets are easily fixed to the smoothed excavated walls with a sealed fixing detail and the system is finished with shotcrete.



Fildrain®

Fildrain® is a geocomposite drainage system which collects and channels water to a carrier pipe for transportation to a suitable discharge point. It has a very high flow capacity, many times that of traditional crushed stone (specific data is available). This is due to the unique open structure created by the dimpled construction which allows unhindered water flow. The **Fildrain®** range of drainage products have many applications and are typically used for the drainage of highway edges, car parks, airfields and similar applications.

Fildrain® also has applications in the drainage of embankments and reinforced earth structures, cut-off trenches on contaminated land and landscape applications where a narrow trench is dug and the **Fildrain®** placed within and backfilled using excavated materials. It can also be used as the basis of a gas collection system beneath man made reservoirs and snow water ponds.

Manufacture and Composition

Fildrain® consists of either a single or double cusped HDPE core with a non-woven geotextile filter thermally bonded to one side and usually fully wrapped over.

Sizes

Fildrain® is available in widths from 100mm to 4.4m, typically in roll lengths of 50m and is manufactured in thicknesses of 4, 6, 7, 12, 25 and 50mm.



Roofdrain®

ABG Roofdrain® consists of a perforated cusped HDPE core with a geotextile bonded to either one, or both sides. It is designed for use in the construction of extensive green roof systems and allows the storage of water within the cusps of the HDPE core, whilst facilitating the efficient drainage of any excess water away from the roof.

This helps prevent the root growing media from drying out during dry periods and from becoming waterlogged during wet periods.



Other ABG Products

Salt Break

ABG's Salt Break geocomposite is designed specifically as a drainage void layer installed to protect imported clean soils from the rise of saline ground water through capillary action.



Erosion Control

ABG have a comprehensive range of environmentally friendly erosion control products including Erosamat Type 3 for permanent erosion control - a dense mat of polypropylene fibres thermally bonded together to form a tough and flexible erosion mat and Erosamat Type 1 and 2 biodegradable coir versions.



Root Barrier

Rootline is a root barrier developed to protect highways, foundations, waterproofing, pipes and other services from damage arising as a result of tree root penetration.



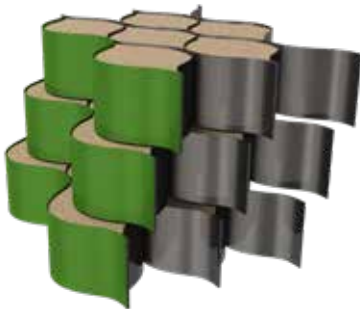
Geogrids

ABG's Geogrid range includes Abgrid biaxial geogrid for use in a wide range of civil engineering applications such as basal reinforcement, ground stabilisation, aggregate reduction, piling platforms and foundation engineering in paved and unpaved roads and temporary works.

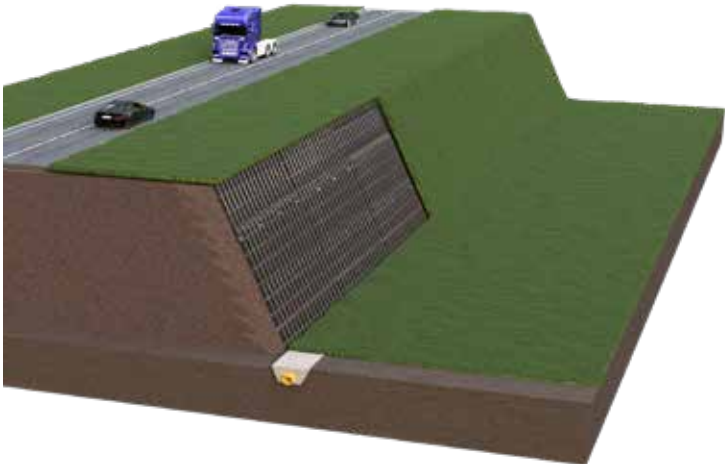


Reinforced Soil Retaining Walls

Webwall is a modular retaining wall system that utilises low grade fill within a geocellular matrix that is then planted to create a green facia.



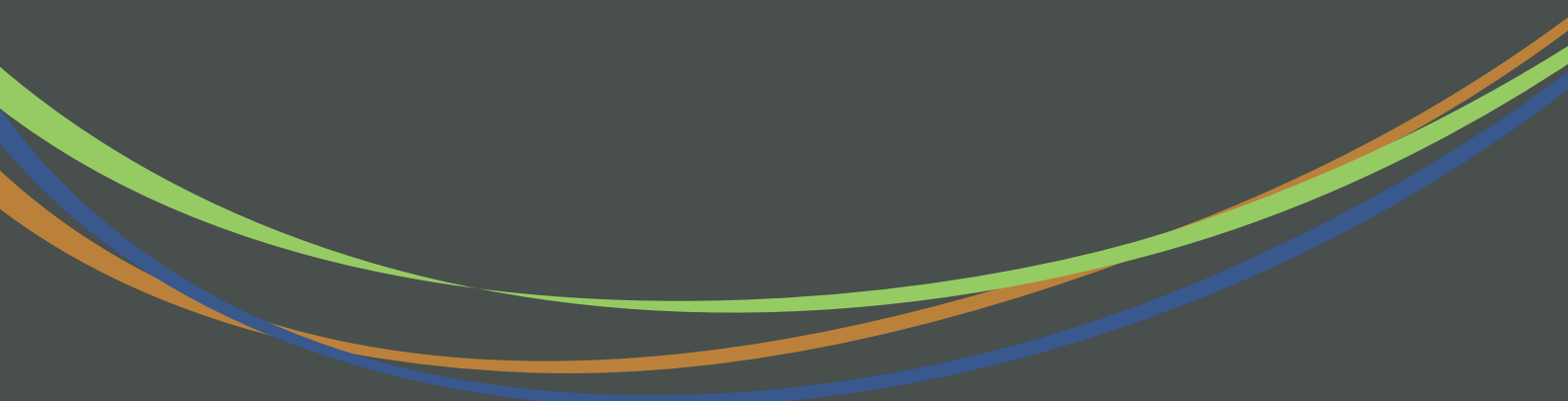
Abslope SM consists of a proprietary steel mesh facing panel and retained earth, reinforced with ABG geogrids. The slope can be constructed to a face angle of between 60° to 70° and the steel mesh facing is lined with a vegetation liner to assist establishment of a grassed slope face.



Reference Projects

A selection of recent projects showing the variety in scope and scale of projects specified and successfully supplied by ABG.

Project	Product	Application	Country	Size
Cross River Rail	Cavidrain	Invert drainage	Australia	50,000 m2
Sydney Opera House	Cavidrain	Waterproofing Leak Detection	Australia	4,000 m2
El Soldado Mine	Pozidrain	Tailings lining	Chile	50,000 m2
Commercial Boulevard	Pozibreak	Salt barrier	Qatar	46,000 m2
Expressway 61	Fildrain	Carriageway drainage	Poland	35,000 lm
Young Dong Tunnel	Cavidrain	Invert drainage	South Korea	75,000 m2
Kandilli Reservoir	Fildrain	Gas venting	Turkey	10,000 lm
South Eastern Motorway	Deckdrain	Bridge abutment drainage	Ireland	4,000 m2
Balleally Landfill	Pozidrain	Capping and gas collection	Ireland	400,000 m2
Sandton City	Deckdrain	Block paving drainage	South Africa	16,000 m2
Mei Foo Station	Deckdrain	Green roof	Hong Kong	27,000 m2
International Finance Centre	Deckdrain	Block paving drainage	Dubai	20,000 m2
Gautrain Tunnel	Cavidrain	Invert drainage	South Africa	50,000 m2
Obra Parque	Piledrain	Secant wall drainage	Spain	3,300 lm
Chi Ma Wan Cable Tunnel	Cavidrain	Tunnel wall lining and cavity drainage	Hong Kong	16,000 lm
QGC, Orana Ponds	Pozidrain	Reservoir lining	Australia	9,000 m2
Estarreja Landfill	Pozidrain	Capping	Portugal	95,000 m2



abg ltd. E7 Meltham Mills Rd, Meltham, West Yorkshire, United Kingdom, HD9 4DS

export sales +44 (0)1484 852250

email export@abgltd.com

www.abgltd.com

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