100% Black Owned

Gundle®
GEOSYNTHETICS

www.gundlegeo.co.za

H.D.P.E Environliner

Manufacturers, Distributors and Installers of H.D.P.E. Geomembranes & Geosynthetic materials across the African continent.

Covering new ground, lining Africa one square at a time.

2018/2019

IGS SABS ISO 9001 cidb Construction Industry Development Board Institute of Waste Management of Southern Africa SABI Geosynthetic Institute GIGSA BENEFACTOR

Gundle Geosynthetics is technically focused and is able to assist with design, supply and installation of gemembrane materials, in most lining applications requirements. This means peace of mind to all our customers. All our materials and installation methods strictly adhere to South African and International standards.

We specialise in the supply and installation of geosynthetic liners into the following applications:

Winhold was incorporated in the Republic of South Africa on 29 September 1945 and operates as an investment holding company. The company was listed on the main board of the Johannesburg Stock Exchange (JSE) under the industrial Goods and Services Sector up until October 2017, as a result of the change in ownership of the organisation.

Winhold (Pty) ltd was purchased by Wafima Manufacturing and distribution (Pty) Ltd, which is 100% owned by CEO and executive chairman Zola Fubu, making both Winhold (Pty) Ltd and Wafima Manufacturing and Distribution (Pty) Ltd 100% black owned investment holding entities

Our affiliation with Gundle Plastics Group, is a relationship that provides financial muscle, security and stability, as well as, years of knowledge and experience.

Gundle Geosynthetics is a division of the Gundle Plastic Group and was established in 2004. Since then, Gundle Geosynthetics has built a reputation through efficient service, quality products and unbeatable workmanship.

GROUP ALSO OFFERS: Packaging Plastics, Construction Plastics, Agriculture plastics. See more information on www.winhold.co.za / **www.gundle.co.za** / www.gundleapi.co.za

Our success can be attributed to:

- We are a young, though experienced team that is dedicated to growing the business through attention to detail, quality, service and a professional approach.
- Gundle Geosynthetics is technically focused and is able to design, supply and install geomembrains material, in most lining applications. This means peace of mind to all our customers. All our material and installation equipment strictly adhere to South African and International standards.
- Our ISO certification together with our QA/QC on site System, back to back with SANS10 409 & SANS 1526 Standards (GRI GM13/17) assures the highest quality, consistently.
- Strong relationships with international manufacturers, as well as, our own manufacturing capabilities enable us to produce superior quality material.

Applications

Some Applications: Water Storage Dams/Reservoirs, Water Canals, Heap Leach Pads, Bund areas, Environmentally friendly and green building solution (green roofs + rain water harvesting), Evaporation Ponds, Aeration Ponds, Landfill Cappings, Ornamental Lakes, Potable Water, Reservoirs, Tunnels, Environmental Protection, Irrigation Dams, Aquatic Farming Ponds, LANDFILLS.

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Irrigation dams

Cappings

Landfills
(H-H and all classes)

Solar Evaporation Ponds,
Raw Water Ponds etc.

Bunded Areas / Detailed Work

Golf Courses

Aquaculture

Tailing dams + Heap Leach Pads

The Gundle Geosynthetics

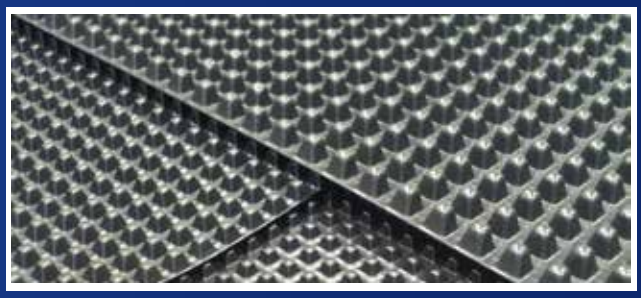
Product Range

HDPE

Gundle Environliner

GEOTEXTILE

Gundle Guntex



DRAINAGE MEMBRANE

Gundle Gundrain

GRIDS

Gundle Geogrids

GCL'S

Geosynthetic Clay Liner

GEO CELLS

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Product description

High Density Polyethylene (HDPE) and Linear Low Density Polyethylene (LLDPE)

0.5 to 3.0mm smooth or one side or both sides textured.

Non-woven Polypropylene (PP) or Polyester (PET) Staple Fibre filament.

Other types: Stitch Bonds, Staple Fibre or Woven Polypropylene.

High/Low density cuspated drainage sheet

Used for Leachate and ground water drainage +anti moisture insulation. Performs better than conventional stone drainage with increased volume and has great hydraulic properties.

Highly orientated polypropylene or polyester bar that is uniformly extruded and drawn to achieve a high modulus and strength at low elongations.

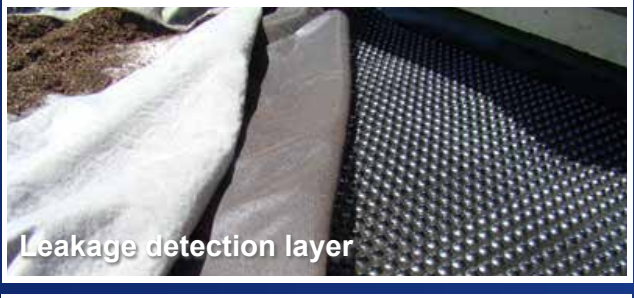
Mechanically bonded composite Bentonite Powder and/or granules encased in a body of woven / non-woven geotextiles. Commercially viable option to replace natural clay layers in the use of sealing various engineering facilities (ecological and resources).

Honeycomb-like structure manufactured from stitched coated woven geotextile or HDPE or LDPE. Recommend a geotextile below the cells.

Applications


Liquid / Solids containment system


Liner protection
Separation
Drainage
Re-enforcement


Leakage detection layer


Base re-enforcement
Retaining wall construction
Embankment re-enforcement
Pile cap platforms


Sealing of earth dams
Sealing of cappings
Sealing of landfills


Erosion control
Landscaping
Load support
Canal lining used when concreting canals

Seaming systems & Equipment

The processes thathave been approved for field seaming and repairing are extrusion welding and fusion welding. All welding equipment is fitted with accurate temperature monitoring devices to ensure the proper measurement of the applicable fusion welding wedge temperature or the extrusion barrel temperature.

Double hot wedge weld
This is a thermal technique that melts the two opposing geomembrane surfaces together by running a hot metal wedge or knife between them.

Extrusion fillet weld
This seaming technique involves extruding molten polypropylene at the overlapping edge of geomembranes to form a continuous bond.

Testing methods
To ensure quality, longevity and a product that we can confidently hand over to the client, all seams are tested before general seaming operations may proceed via the peel test and air pressure test.
Vacuum box testing done on extrusion weld T-joints.

Peel Test

Air Pressure Test

Vacuum Box Test

AS PER SANS 10409

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The Gundle geosynthetic quality control plan has been developed to incorporate the Geosynthetic research institute (GRI) standard specifications, SANS 10 409 and ISO 90001:2008. These specifications were incorporated as the backbone of the document to ensure that quality is the vital determining factor for every project. As each project is unique it may be required to adhere to project specifications, such documentation when required, which will become an appendix to the project contract or the documents.

The document covers the most common geosynthetic components used for the construction of a synthetic lining system, including geomembranes; geotextiles; geonets, geocomposits and geosynthetic clay liners. This document outlines the quality control procedures and recommended standards, to which the above mentioned geosynthetic products have to be installed.

Our quality assurance / quality control document covers the following:

1. Personnel functions and duties on site.
2. Pre-Construction meeting.
3. Geomembranes layout and process tests.
4. Geotextiles layout and process tests.
5. Geocomposites layout and process tests.
6. Geosynthetic Clay Liners layout and process tests.
7. All on site test logs (Destructive and Non-destructive)

Ideal installation conditions

Anchor trench Size: min 300mm by 300mm (to advise).
Position: 500mm - 1500mm away from brim (to advise)
Trench/canal edges to be round.
No sharp edging.
Backfilling to the outside of dam next to anchor trench.
Soil preparation: Stone free, soft contours.

Sandbags for holding down liners and prevent wind damage.

Area to be free of any water/mud.
Exposed rocks in lined area to be covered with soil or geo textile (see page 4 product range).

Pipe penetration: minimum 300mm clearance to do watertight seal around pipe.

Gundle®
GEOSYNTHETICS

Michael Gronloh or any of our Estimators on:

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Agriculture / Farm dams:
Rudi Jansen van Vuuren | rudi@gundleapi.co.za

We also have branches in KWAZULU NATAL, CAPE TOWN, BLOEMFONTEIN, NELSPRUIT, PORT ELIZABETH, GEORGE, EAST LONDON, SWAZILAND, BOTSWANA, GHANA.

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