CeTeau

Geosynthetic Solutions

CeTeau Profile

CeTeau stands for innovative

ground improvement technologies and specialised geosynthetic environmental techniques. With more than 15 years of worldwide experience in numerous projects, CeTeau is ready to execute your ground improvement and environmental projects according to the highest standards.

We can offer a complete tailored package for almost any geosynthetic challenge

- Site investigation
- Design proposal for ground improvement
- Execution of ground improvement work
- Instrumentation and monitoring
- All geosynthetic applications

CeTeau is a privately owned company based in The Netherlands operating globally trough subsidiary companies and a worldwide dealer network. Having offices and manufacturing plants in Malaysia and Thailand we have a strong presence in the heart of South East Asia. A excellent location with the current development momentum shifting to that part of the world, while at the same time we benefit from the added cost advantages.

Flexibility, service and quality are of prime importance to the group, CeTeau uses highly qualified employees to carry out its activities all over the World.

Prefabricated Vertical Drains (PVD)

Prefabricated Vertical Drains (PVD) or Wick Drains are prefabricated drain strips consisting of a polypropylene core extruded into a configuration to transmit maximum water flow on both sides of the core. The core is wrapped in a non-woven filter, ultrasonically welded at the edges.

PVD Saves Time

Vertical drains are used to shorten the settlement period, reducing the construction period of a project and to avoid post-construction differential settlements. By shortening the drainage path in fine soils, such as silts and clays, it only takes months instead of years for the water to dissipate and prepare the soil for supporting new loads.

The Technique

The drains are installed vertically into soft soils in order to shorten the path water must travel, accelerating the consolidation of the soil. By applying a temporary preload on top of the embankment or fill, the consolidation period can be reduced even more. Additionally, a part of the secondary settlement is also eliminated.

Manufacturing

CeTeau-Drain is manufactured in modern factories located in Malaysia and Thailand. CeTeau is focusing on green manufacturing using only high grade polypropylene, which does not contain any additional chemicals that can pollute the soil.

High Quality Standards

The production facilities in Malaysia and Thailand have been accredited ISO 9001 : 2008 and ISO 14001 : 2004
For certificate details visit
www.ceteau.com

Main Applications

- Roads, railways, dikes and airports
- Land reclamation
- Harbor construction
- Urban and industrial sites

Other Applications

- Stabilization of slopes
- De-watering to lower aquifers
- Vacuum consolidation
- De-gassing of landfills

Vibro Stone Columns

CeTeau Vibro Replacement increases the load bearing capacity by constructing stone columns in weak soils. This technique provides an economically and technically proven solution to a wide range of foundation problems.

The Technique

Crushed aggregates are placed into the soil at regular intervals throughout the area where the soil bearing capacity needs to be improved. This is done either by using the dry bottom or the wet top feed vibrators, which are forced into the ground. The aggregates are then allowed to take the place of the displaced soil.

CeTeau Stone Columns

- Wet Method
- Dry Method
- Top Feed
- Bottom Feed
- Off-shore Method

Vibro Impact Roller compaction

Vibro Impact Rollers are used after the "deep" compaction with the vibro probes, because the vibro probes can't effectively compact the final surface. Dynamic compaction equipment impacts massive kinetic energy due to the "square" impact module, which is pulled and powered by a large tractor. Impact Rollers are used around the globe for civil engineering projects and in the mining industry.

Vibro flotation

This method is also known as "Sand Compaction". Natural deposits as well as artificially reclaimed sands can be compacted up to a depth of 70 meter. The intensity of compaction can be varied to meet bearing capacity criteria. Other improvement effects such as reduction of both total and differential settlements are achieved.

CeTeau Water Proofing Solutions

CeTeau offers solutions widely used for containment of liquids, solids and waste materials

CeTeau offers a wide range of materials capable of meeting the ever increasing environmental demands

Geosynthetic Clay Liners (GCL)

GCL's are used for similar purposes as HDPE liners, or as secondary containment layer below HDPE liners. One of the advantages is that the liners are joint by overlapped seams (without welding), which makes installation easier. The other main advantage is that the GCL's have self sealing properties. A GCL consists of a geotextile or geomembrane carrier component bonded to a layer of low-permeable sodium bentonite. Our GCL's provide better engineered hydraulic performance than one meter of compacted clay.

High Density Polyethylene Liners (HDPE)

HDPE Liners are used for containment of liquids, solids and waste materials. It is resistant to a wide range of chemicals and reliable in exposed environments due to, high UV protection against degrading and low temperature brittleness. To connect HDPE liners our own certified technicians heat weld the liners on site. All welds are tested in the field to guarantee the quality.

Geotextile

Geotextiles

CeTeau geotextiles are permeable fabrics which, have the ability to separate, filter, reinforce, protect, and drain. Our geotextiles are made from polypropylene or polyester and are available in three basic forms: woven, needle punched or heat bonded.

Advantages

Geotextiles provide major contributions towards increased efficiency and economy in all facets of construction.

Applications

- Separation / reinforcement layer in foundations for motor ways, airports, railroads, etc.
- Filter material for drainage systems, bank and slope protection, erosion control, etc.
- Protection layer for waste depots, tank storage, canal lining and irrigation basins, etc.
- Reinforcement or soil stabilization of soft areas and marine works.

Geogrid

CeTeau geogrids have been developed to overcome the bearing limits of many poor and weak natural soils and other mineral construction materials. Geogrid's strength and geometric structure allows for the absorption of shear loads, which avoid destabilization of soft soils, and transmit only the vertical loads to the soft soil at the construction of dams, landfill slopes, base layer strengthening, canal banks, or similar applications, Geogrids are also widely used for the construction of very steep slopes due to space constraints or when a gradient is greater than the internal friction angle of the material available.

Segmental Reinforced Block Wall

CeTeau segmental reinforced blocks wall, economical, flexible, durable, easy to install and aesthetically pleasing. Our block walls are gravity retaining walls consisting of concrete masonry units, which are placed without the use of mortar (dry stacked), and which rely on a combination of the mechanical tongue and groove interlock, mass and geogrid anchoring to prevent overturning and sliding.

Vinyl sheet pile

CeTeau Vinyl sheet piling systems are the new standard with many advantages compared to hard wood, concrete and steel sheet piling. Vinyl sheet piles are made of polyvinyl chloride also known as PVC, a material with excellent resistance to weather influences, The material will not be affected by natural matters occurring in the ground, rodents, and salt or fresh water. PVC sheet piling has a number of benefits mainly, cost, durability, ease of handling and reduced environmental impact.

Advantages

- Does not rot or rust
- Long service live
- Maintains its original appearance over time
- Resistant to the majority of chemicals
- Not affected by salt water
- Maintenance free
- Light weight, easy handling
- Reduced transportation costs
- Easy to cut and bore
- Reduced impact on natural resources

Geocell

CeTeau geocell is a cellular threedimensional high density polyethylene honeycomb structure designed to physically confine infill material. By using geocell the infill material is protected from migration due to hydraulic flows.

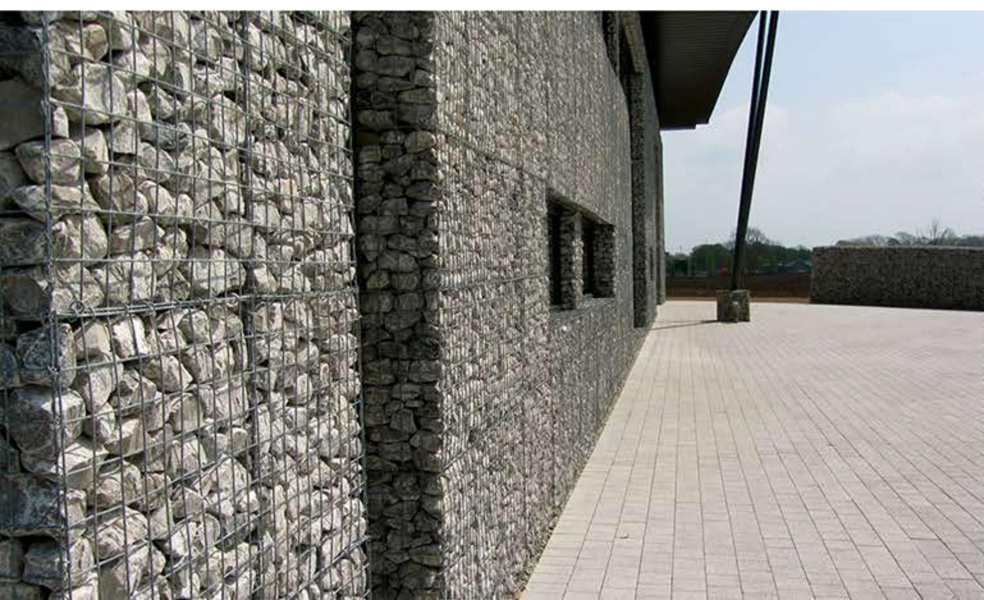
Advantages

Geocell provides excellent protection for slopes against erosion. Stabilizes base material for load bearing purposes, reducing fill thickness. Confinement with cellular systems (prevention of horizontal movement) substantially improves the material shear strength and bearing capacity.

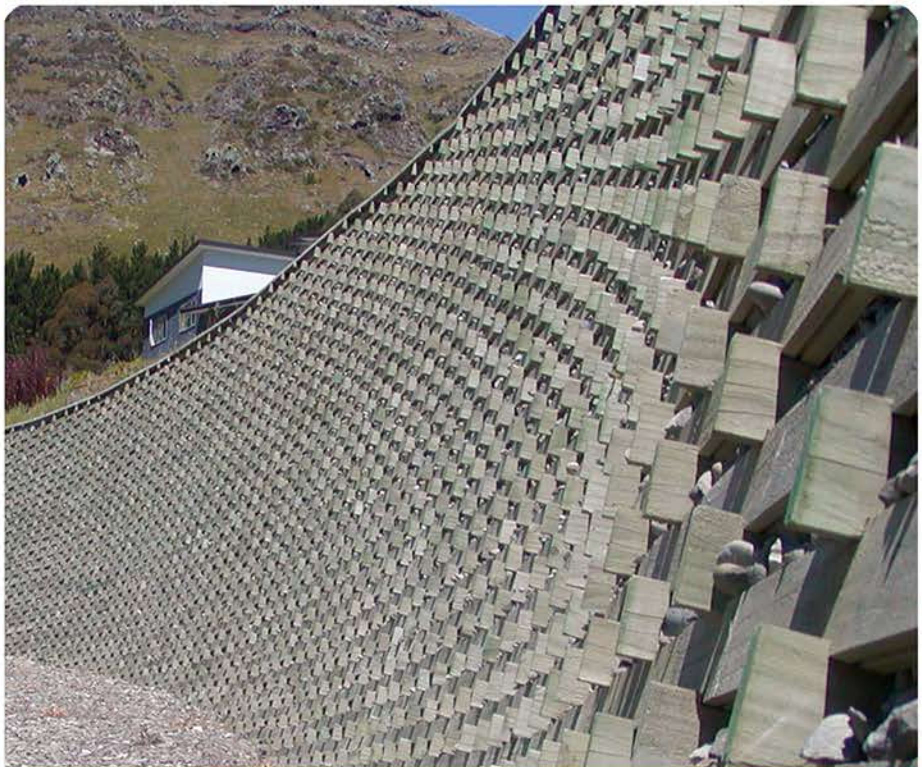
Gabions



CeTeau gabions, by virtue of their matchless strength, excellent engineering adaptability and proven reliability, have become the chosen building material for a tremendous variety of construction work. These include road construction, river banks, weirs, control and retaining of flood water, earth retaining structures, coastal defense, harbor works, erosion control and bridge protection. Lately welded gabions have become very popular in land based retaining structures, feature wall cladding, sound walls, seating and other landscape features where the beauty of rock and the clean straight, architectural lines of the welded mesh panels are desirable.




Timber Wall Retention



CeTeau timber wall retention is a structurally engineered walling system, utilizing the long established gravity wall concept. The patented lightweight interlocking components form a series of open cell modules. These are then filled with well graded stone to create the mass required to counteract the earth pressures and surcharge loadings.

Silt Protector

Silt Protector is a flexible product that has been designed to physically prevent diffusion of pollution generated in dredging or reclamation works on the seas or rivers. The main function of silt curtain is to enclose turbidity and to minimise the environmental impact of water works

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