



GEOQUEST

GeoTrel™

WIRE MESH FACING

GeoTrel™

Wire mesh facing solutions for Mechanically Stabilised Earth structures

The GeoTrel™ system is the combination of welded wire mesh facing and geosynthetic reinforcing strips.

The technical performance of this system has been proven on complex projects, even for tall and heavily loaded Reinforced Earth® structures.

The GeoTrel™ system is one of the most cost-effective solutions for reinforced soil structures.

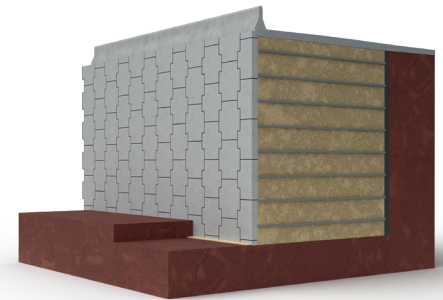


Unique technical features

The GeoTrel™ system is composed of geosynthetic reinforcing strips attached by patented connectors to a wire mesh facing.

The reinforcing strips are available in 2 types either with regular or high adherence edges, chosen according to the pH condition of the intended backfill:

- GeoStrap® reinforcing strip (coated polyester - PET) when the backfill has a pH lower than 9
- EcoStrap™ reinforcing strip (coated polyvinyl alcohol - PVA) when the backfill has a pH higher than 9



3D view

The connectors between the strips and the facing have been designed to provide high durability and easy installation. The minimum diameter of the mesh wire is 6mm which provides high performance of our structures during the intended service life.

The GeoTrel™ system is subject to rigorous specifications and quality control. Friction between the soil and the geosynthetic strip was verified through both in-situ and laboratory tests using calibrated extraction systems.

As with all Reinforced Earth® structures, the GeoTrel™ system is designed according to the governing international standard for its location.



GeoStrap® reinforcing strip



EcoStrap™ reinforcing strip



HA GeoStrap® reinforcing strip



HA EcoStrap™ reinforcing strip

Geosynthetic reinforcing strips

Versatile and flexible solutions

GeoTrel™ structures are designed to match our client requirements, even for complex geometries and project specific constraints. Our structures are already used worldwide, with walls built in excess of 30 meters height for permanent and temporary applications.

- **Permanent walls:** the galvanised wire mesh facing can be backed by either rock or stone for permanent structures such as mine dump walls and avalanche barriers. The facing can also be vegetated and backfilled with soil for green walls and urban applications.
- **Temporary walls:** the GeoTrel™ system is particularly appropriate for projects requiring temporary phasing walls or as an alternative to natural slopes to solve land use constraints. For these applications, a geotextile is used to retain backfill behind the black-steel wire mesh facing.



Straightforward construction methodology

The GeoTrel™ construction method is similar to traditional Reinforced Earth® structures.

- The first row of panels is installed on a well-leveled and compacted technical fill.
- This first panel row is braced directly to the ground to prevent movement during placement of the backfill.
- The succeeding panel courses are installed as the geotextile backing (if needed), backfill and reinforcements are placed.
- Once installed, each level of reinforcement is vertically spaced 50 to 60 cm apart, which corresponds to a multiple of the backfill layer thickness.
- The backfill is placed and compacted using traditional earth-moving machines

Due to the modularity of the GeoTrel™ system and portability of its components, this solution is readily adapted to remote areas.



The Reinforced Earth[®] technique, a major innovation

Recognised as a **major innovation in the field of civil engineering**, the Reinforced Earth[®] technique provides numerous structural solutions for owners and contractors ranging from retaining walls to bridge abutments.

As the world leader in mechanically stabilised earth, Geoquest has a presence in five continents, and benefits from both local and international expertise.



Cumbria Electric sub-station - Old Hutton, UK



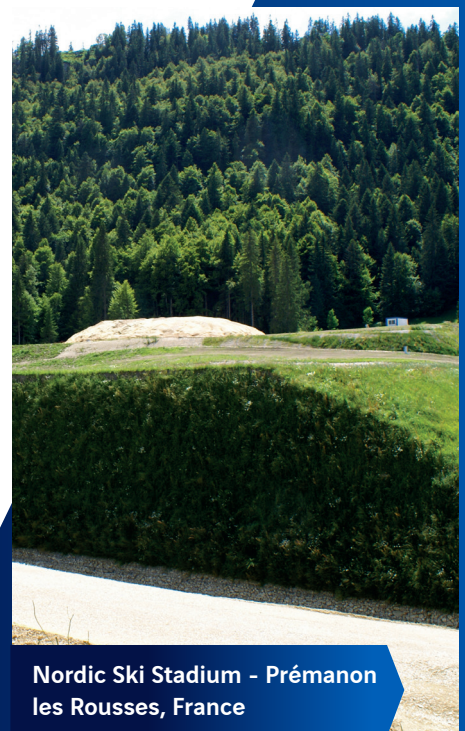
Wildlife crossing - Brignoles, France

This wealth of expertise has led Geoquest Group to develop processes offering common advantages:

- Reliable and sustainable materials
- Savings in terms of time and resources
- Capacity to adapt to complex situations
- Integration into the environment, in particular due to an extensive range of panel finishes

The Reinforced Earth[®] technique has revolutionised structural design and is applicable for all kinds of structures:

- Transport infrastructures
- Marine & riverine
- Industrial, mining & energy
- Environmental
- Land development and buildings



Nordic Ski Stadium - Prémanon les Rousses, France

About Us



1968

established since



293 M€

2023 revenue



80

countries



70 million m²

of Reinforced Earth[®]
walls



+100.000

structures around
the world



102,8 m

tallest structure

As global specialist we operate as **designer** and **supplier** of civil engineering solutions that **Retain, Cross, Protect and Strengthen**. As the **inventor of the Reinforced Earth[®] solution**, our strength is the result of an **unrivalled combination of expertise with over 60 years of experience** in the fields of **soil-structure interaction** and **engineered backfills**.

Geoquest delivers **its leading technologies** to serve clients' projects, from the simplest to the most extraordinary. Guided by our focus on **innovation** and our **culture of excellence in client care**, we offer **durable solutions**. We build on our **global expertise**, which is applied by our **local companies** to develop new applications to address challenges and ensure sustainability of our solutions.

Watch our Retain, Cross, Protect, Strengthen video.



 www.geoquest-group.com.au

 Geoquest Australia

 Geoquest Group

**Engineering expertise, innovation and
excellence in client care to deliver
sustainable solutions.**



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Publication: January 2025