



Geotech & Coastal Engineering

Precast Concrete Reinforced Earth

Geotech & Coastal Engineering provides full design, supply and installation supervision service on all our products.

Our experienced design team and provide clients and contractors with optimum peace of mind and minimum risk.



Advantages

- φ Specialist design to minimise risk.
- φ Particularly economical for situations where the wall is retaining fill material.
- φ Performs better in poor soil conditions.
- φ Aesthetically pleasing with high quality fair faced or textured concrete face.
- φ Suitable for curves and sharp corners.
- φ Easy installation, utilising mortarless, interlocked panel system.
- φ Faster installation with reinforcement layers at 900mm spacing.
- φ Faster installation with larger panels. Faster installation minimises site disruption.
- φ Robust steel mesh soil reinforcement to minimise damage during construction.
- φ Durable.

Introduction

Our Precast Concrete Reinforced Earth system is the result of over 20 years of experience with Mechanically Stabilised Earth (MSE) walls. The basic components of system are reinforcing wire mesh or our CE certified Secugrid® geogrid with a facing material such as precast concrete panels.

The 0.9m spacing between soil reinforcement layers allows for less starting and stopping of the backfill operations with fewer layers of reinforcement. The use of galvanised steel wire mesh for soil reinforcement reduces panel rotation during construction. This together improves efficiency on site resulting in an improvement in the installation rate.

While the standard design utilises galvanising for corrosion protection, the steel wire mesh reinforcement can also be heavily galvanised, epoxy coated or geogrids can be used to suit any durability and design life issues.





Specification

Panel Front Face

Precast concrete with fair faced or a choice of textured finished.

Panel Dimension

1.829mm (W) x 2.419mm (H) x 140-180mm (T)

Precast Concrete

Concrete to be grade 30N20

GGBS optional

Min. cover to reinforcement to be 40-60mm.

Soil Reinforcement

Welded steel wire mesh grid, with galvanised corrosion protection. Also available with our CE certified Secugrid® geogrid for special applications.

Galvanised steel mesh soil reinforcement is manufactured from high tensile steel and hot dip galvanised to ISO 1461.

Backfill Material

Granular backfill material to comply with the requirements of BS8006 and the design requirements.

Applications

- φ Housing, Commercial and Industrial Developments
- φ Hotels, Restaurants and Shopping Centres
- φ Marinas, Ponds, Streams and Canals
- φ Parks, Golf Courses and Swimming Pools
- φ Roads, Highways and Railways
- φ Bridge abutments
- φ Sea walls
- φ Landscaping Projects

Construction Sequence

- φ Excavate the site
- φ Place the levelling pad
- φ Erect the panels
- φ Place and compact the granular backfill
- φ Connect the soil reinforcement
- φ Repeat the previous two steps until the required height is achieved.