

PYRAMID GRID®

Earth Retention Wall & Slope Stabilization Geogrid Solution

The most effective soil reinforcement solution for structurally sound MSE retaining walls and steep slopes.



- Retaining wall systems
- Bridge abutments
- Vegetated retaining walls
- Steep reinforced slopes
- Embankments on soft subgrades
- Landfill liner reinforcement
- Mining applications
- Veneer reinforcement for landfill capping





**Pyramid
Grid®**

TitanEnviro.com

PRODUCT DESCRIPTION AND BENEFITS

- Pyramid Grid® uniaxial polyester geogrids are specifically designed for soil reinforcement in applications such as retaining walls and steep slopes where disturbing forces are to be resisted predominantly in one direction.
- Placed between soil layers, these geogrids work to reinforce the soil and improve structural stability.
- They can be used alone or in combination with a range of facing elements, such as:
 - Segmental blocks
 - Precast concrete panels
 - Green facing or wraparound galvanized steel facing to maximize soil performance and prevent early structural deterioration effectively.

Ideal design solution for:

- Soil stabilization in applications such as MSE retaining walls and steep slopes.
- Slope remediation projects and landslide repairs.
- Applications involve excavating, reusing the failed soil, and layering it with geogrid to provide the necessary reinforcement.
- Applications with harsh climactic conditions where fast and environmentally friendly construction is necessary for safety and cost efficiency.

KEY BENEFITS:

Eco-Friendly

- Fast construction = lower carbon footprint
- Allows the use of on-site fill = lower carbon footprint
- Reduction in traffic disruption and lane closure = lower carbon emissions
- Up to 60% Embodied Carbon (EC) reduction

Longevity & Design Life

- Ability to withstand differential settlement = higher structural performance
- High resistance to dynamic shock loading and seismic activity
- High connection capacity strength between facing and the grid

Cost Savings

- Provides up to 60% in material and time savings compared to conventional reinforced concrete and gravity structures
- Quick and easy installation = economical construction
- Allows the use of on-site fill = construction cost savings



PRODUCT FABRICATION AND FEATURES

- Pyramid Grid® uniaxial polyester geogrids are manufactured with high molecular weight > 30,000 and high tenacity polyester yarns using a precision knitting process.
- This geogrid is dimensionally stable with uniform apertures that provide significant tensile reinforcement capacity in one direction.
- A black PVC saturation coating provides chemical, mechanical, and ultraviolet protection.
- Engineered to withstand harsh construction conditions and aggressive soil environments.
- Unaffected by soil micro-organisms.

A PYRAMID GRID® FOR EVERY PROJECT

There are 6 variations of Pyramid Grid® to meet specific application requirements. Each varies in ultimate tensile strength, creep reduced strength, long term design strength.

**PYRAMID
GRID®
50**

**PYRAMID
GRID®
70**

**PYRAMID
GRID®
120**

**PYRAMID
GRID®
150**

**PYRAMID
GRID®
200**

**PYRAMID
GRID®
250**



Design Outcomes

- Safe and durable structures
- Highly economical designs
- Aesthetically pleasing structures
- Choice of different facings – concrete, stone, vegetation
- Use of locally available soils
- Flexible structures that can withstand earthquakes and have appreciable tolerance to differential settlement
- Fast and easy construction
- Reduction in carbon footprint



PYRAMID GRID® TOP ATTRIBUTES

Pyramid Grid® is a high tenacity PVC coated polyester geogrid with low long-term reduction factors. It is strong in many categories, including manufacturing, chemical resistance, and creep reduced strength.



Manufacturing



Creep Reduced Strength



Chemical Resistance

When compared to HDPE and other polyester geogrid alternatives, Pyramid Grid® excels in mechanical properties, long term design strength, and durability.



Mechanical Properties



Long Term Design Strength



Durability

All product solutions are backed by comprehensive engineering and specialized technical support.

Using the latest and advanced design software, we work with engineers and consultants all over the world to provide free first-class customized pre-design support, helping to save time on infrastructure, site development and geotechnical projects.



Want to learn more about Pyramid Grid® or our other smart technologies?

Contact us to request a quote, book a project specific consultation or get free pre-design assistance.

Toll Free: 1-866-327-1957
Email: info@titanenviro.com
Web: TitanEnviro.com

We provide geogrid installation resources for contractors and on-site installation assistance on request.



Scan QR code to see Pyramid Grid® in action in a MSE Wall!