

TITAN EARTH GRID®



Base Reinforcement Geogrid Solution

The superior solution to boost the performance of granular layers and improve the bearing capacity of weak subsoils.

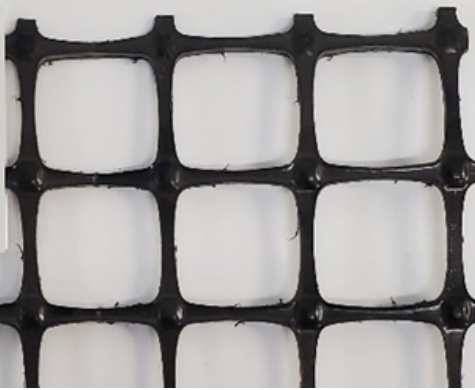
- Site subgrades
- Railway ballasts / sub-ballasts
- Oil platform access roads
- Temporary military roads
- Mine haul roads
- Forestry and logging roads
- Coastal roads
- Parking lots
- Hydro-electric transmission line towers
- Foundation support
- Flexible pavements
- Low volume roads



Titan Earth
Grid®



www.titanenviro.com



PRODUCT DESCRIPTION AND BENEFITS

- Titan Earth Grid® is a **biaxial polypropylene geogrid** used in base applications to reinforce and stabilize weak soils and ensure necessary soil stability.
- When the granular material is compacted over this geogrid, it partially penetrates and projects through the apertures creating an interlocking action between the particles and the grid. This positive mechanical interlock enables the grid to resist horizontal shear from the fill and thereby mobilize the maximum bearing capacity of the soft subsoil.
- This geogrid features uniform square/rectangular apertures with thick integral nodes and thick/wide ribs. Its uniform geometric design allows for strong mechanical interlock with soil particles.

Ideal design solution for:

Base reinforcement to achieve the following:

- Reduce granular layer thickness
- Increase bearing capacity of weak subsoils
- Lessen excavation
- Improve performance
- Decrease maintenance and prolong service life

KEY BENEFITS:

Eco-Friendly

- Minimizes carbon footprint by reducing the use of aggregate, soil excavation, and backfilling.
- Faster compaction = less carbon footprint.

Longevity & Design Life

- Proven high survivability with coarse aggregates
- No damage from freeze-thaw conditions.
- Minimizes differential settlement & prevents upward movement of subgrade = higher structural performance.
- High tensile stiffness at low strains to resist environmental exposure.
- Tested in North America and CE Certified.
- Low construction damage.



Geogrid

Unreinforced

Reinforced

Vertical load without Geogrid

Vertical load with Geogrid



Cost Savings



Reduces granular base
course thickness up to 40%
= construction cost savings



Reduces soil excavation &
backfilling = construction
cost savings



Improves overall
structural life =
maintenance cost savings

PRODUCT MANUFACTURING AND FEATURES

- Titan Earth Grid® is a biaxial polypropylene (PP) geogrid.
- It is manufactured using a punching and drawing process whereby the polypropylene sheet is stretched in two directions: machine (longitudinal) and cross-machine (transverse).
- The result is a monolithic and isotropic geogrid with thick and wide ribs and thick integral nodes.
- The ribs have a high degree of molecular orientation continuing in part through the mass of the integral node.
- Engineered to be mechanically and chemically stable in aggressive soil environments and is not attacked by salt, acid, or alkali aqueous solutions.
- Not susceptible to hydrolysis, environmental stress cracking, or micro-organisms attack.
- Geometry allows for strong mechanical interlock with soil particles and features high tensile stiffness at low strains.
- High resistance to UV degradation.
- High resistance to construction damage

A Titan Earth Grid® FOR EVERY PROJECT

There are 7 variations of Titan Earth Grid® manufactured to meet specific application requirements. Each varies in tensile strength, junction efficiency, flexural rigidity, aperture stability, minimum rib thickness, and aperture size:

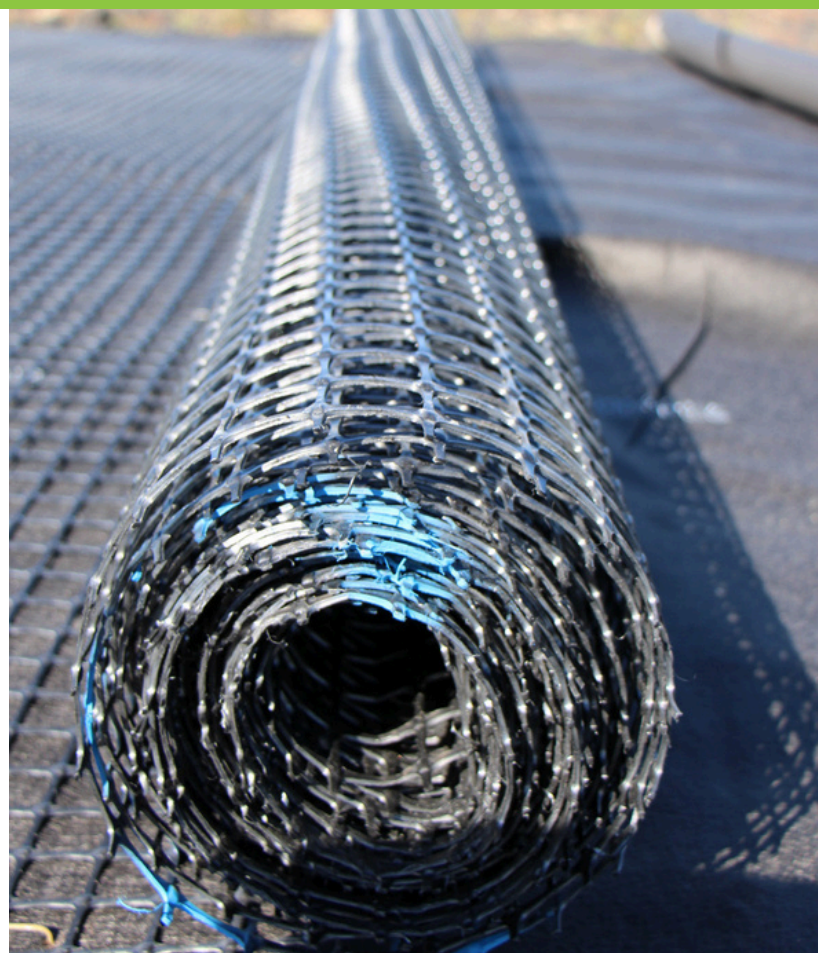
Titan Earth Grid® 2
Titan Earth Grid® 15
Titan Earth Grid® 16
Titan Earth Grid® 20

Titan Earth Grid® 24
Titan Earth Grid® 30
Titan Earth Grid® 40



Design Outcomes

- Savings in quantity of granular material
- Reduction in excavation/undercut
- Better compaction of granular layers
- Faster construction
- Better performance, reduced maintenance, and a longer design life
- Immediate and long-term cost savings
- Reduction in carbon footprint



Titan Earth Grid® TOP ATTRIBUTES

Titan Earth Grid® is an extruded polypropylene geogrid with high tensile stiffness. It is strong in many categories, including manufacturing and mechanical properties.



Manufacturing



Mechanical
Properties

For base reinforcement applications, when compared to polyester and other polypropylene geogrids, Titan Earth Grid® excels in structural integrity and durability.



Structural
Integrity



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 Titan Earth 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
Titan Earth Grid® in
action in a Storage
Tank Floor!