



TITAN

BUILD YOUR LEGEND

GLADIATOR GRID[®]

High-Stiffness Reinforcement Geogrid

High-performance geogrid, engineered for soil reinforcement and stabilization in demanding conditions.

- Embankment stabilization
- Oil platform access roads
- Temporary construction roads
- Mine haul roads
- Industrial access roads
- Highway construction
- Parking lots
- Site yards
- Shallow foundations
- Working platforms for heavy equipment
- Tank foundations





PRODUCT DESCRIPTION AND BENEFITS

- Gladiator Grid® is a **biaxial, high-stiffness polypropylene geogrid** engineered for soil reinforcement and stabilization in challenging site conditions. Geogrid composite options are also available upon request.
- During installation, compacted granular material penetrates through the grid's uniform square apertures, forming a strong mechanical interlock. This interlock resists horizontal shear forces and enhances load distribution, thereby maximizing the bearing capacity of soft subsoils.
- The grid features thick, wide ribs and integral nodes, engineered for durability and consistent performance. Its geometric uniformity ensures reliable interaction with a variety of soil types..

Ideal design solution for:

Base reinforcement to achieve the following:

- Reduce granular layer thickness
- Increase bearing capacity of weak subsoils
- Minimize excavation requirements
- Improve performance
- Decrease maintenance and prolong service life
- Support design flexibility
- Enable efficient use of available aggregates

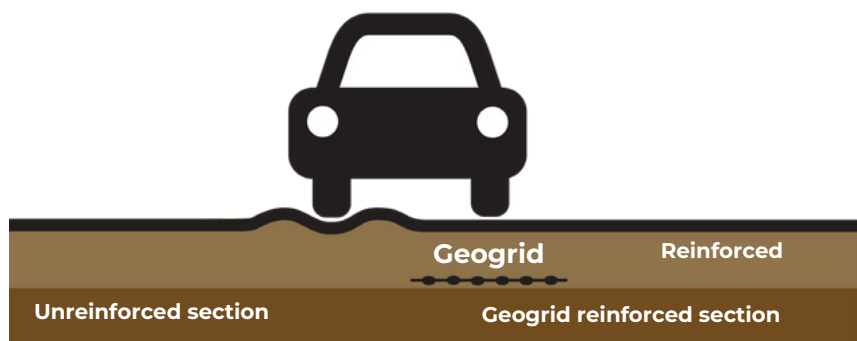
KEY BENEFITS:

Cost-Effective

- Allows for reduced granular layer thickness, lowering material costs
- Minimizes excavation requirements, saving time and labor
- Improves pavement and foundation durability, reducing maintenance
- Extends service life of infrastructure, enhancing lifecycle value

Reinforcement for Weak Subgrades

- Provides high tensile stiffness and strength for superior load distribution, especially at low strains
- Maximizes bearing capacity by resisting horizontal shear forces
- Enables reliable performance even in challenging soil conditions
- Reduces risk of differential settlement and structural failure



Sustainable Benefits



Reduces material usage by minimizing granular layer thickness



Lowers carbon footprint through decreased excavation and hauling



Supports sustainable infrastructure with long-lasting performance and reduced maintenance

PRODUCT MANUFACTURING AND FEATURES

- Titan's Gladiator Grid® is a high-stiffness biaxial polypropylene (PP) geogrid, also available as a composite option.
- It is manufactured using a punching and drawing process whereby the polypropylene sheet is stretched in two directions: machine (longitudinal) and cross-machine (transverse).
- This process produces a monolithic geogrid with thick, wide ribs and robust integral nodes, resulting in a highly isotropic structure with consistent mechanical properties.
- The ribs exhibit strong molecular orientation, extending through the mass of the integral node to ensure durability and load-bearing capacity.
- Engineered to be resistant to creep, chemicals, and biological degradation.
- 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.
- Engineered to perform in a wide range of subgrade conditions, including those with limited geotechnical data.

A Titan Gladiator Grid® For Every Project

There are 6 variations of Gladiator Grid® manufactured to meet specific application requirements. Each varies in radial stiffness, flexural rigidity, aperture stability, minimum rib thickness, and aperture size:

[Gladiator Grid® 250](#)

[Gladiator Grid® 350](#)

[Gladiator Grid® 450](#)

[Gladiator Grid® 550](#)

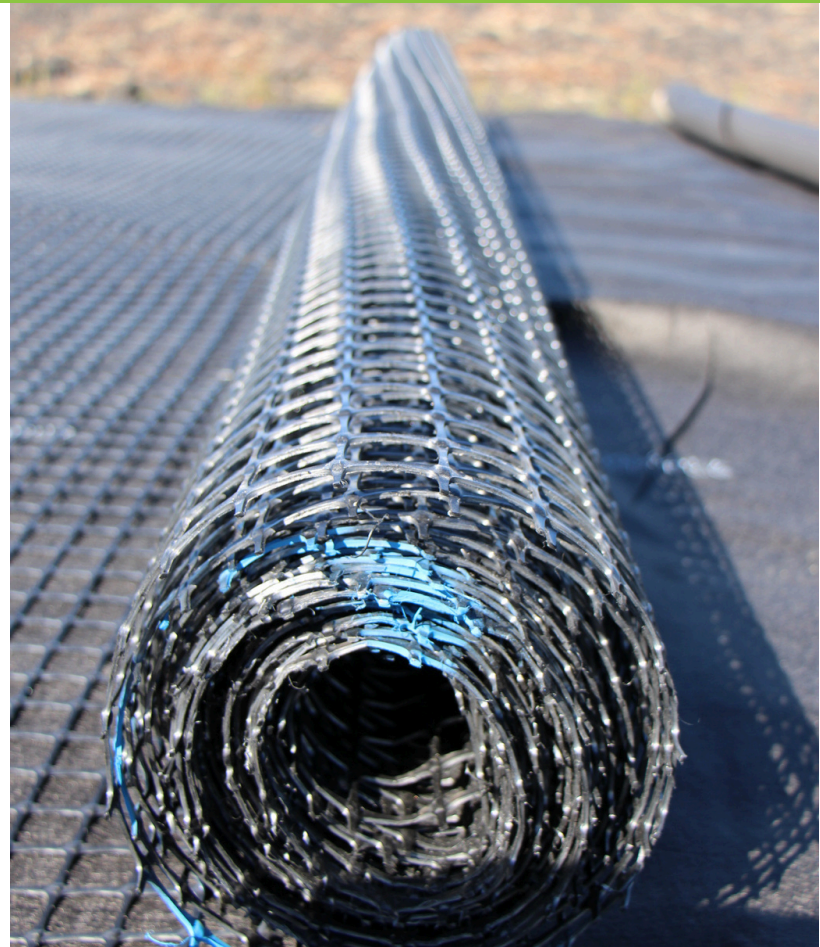
[Gladiator Grid® 550L](#)

[Gladiator Grid® 650](#)



Design Outcomes

- Reduced granular layer thickness
- Less excavation and undercut
- Improved load transfer and compaction
- Faster installation and construction
- Superior long-term performance,
- Extended service life of roads and foundations
- Lower carbon footprint



GLADIATOR GRID® TOP ATTRIBUTES

Gladiator Grid® stands out as a high-performance biaxial polypropylene geogrid engineered for base reinforcement and foundation support in challenging soil conditions. Its thick ribs, integral nodes, and uniform aperture geometry deliver exceptional mechanical interlock, enabling superior load distribution, shear resistance and high stiffness, especially at lower strains.



Reinforcement



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 Gladiator 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
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Web: TitanEnviro.com

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