

PROPEX Armormax[®]

Vegetative Earth
Armoring Solution



TITAN

BUILD YOUR LEGEND

About PROPEX Armormax®

PROPEX Armormax® is an engineered earth armoring system designed to address severe erosion and surficial slope stability challenges. The system combines PROPEX Pyramat® High Performance Turf Reinforcement Mat (HPTRM) with corrosion-resistant Engineered Earth Anchors, which work together to lock soil in place and protect against hydraulic stresses.

PROPEX Armormax® provides a durable, vegetated alternative to traditional hard armoring methods. It is commonly used to protect levees exposed to storm surge or overtopping, as well as stream, river, and canal banks prone to scour.

Suitable for stormwater channels, embankments, and slopes in arid or semi-arid environments, the system can be engineered to resist shallow slope failures while supporting long-term erosion protection and vegetation establishment.



Performance Highlights



Durable Armoring

Lightweight protection layer securely anchored to the subgrade for long-term design life.



High Safety Anchoring

The engineered earth anchors act as a tie down mechanism securing the HPTRM firmly to the ground for additional safety factors.



Resist Shallow Plan Failures

The HPTRM is engineered to provide surficial slope stabilization to resist shallow plane failures for up to 75 years.



Hurricane Overtopping Performance

Colorado State University found that PROPEX Armormax significantly strengthened levee performance and lowered breaching risk during 500-year hurricane overtopping tests.



Resists Non-Hydraulic Event Damage

High strength survivability woven surface resists non-hydraulic stresses like debris and maintenance operations.

About PROPEX Armormax®

Benefits:

- Long-term erosion protection with service life up to 75 years
- Engineered to withstand extreme hydraulic stresses
- Reinforces slopes and helps resist shallow slope failures
- Durable against debris, mowing, and maintenance equipment
- UV stabilized and fire resistant for exposed environments
- Lightweight system for faster, more efficient installation
- Ideal for projects with limited access or challenging site conditions
- Can reduce right-of-way requirements compared to hard armoring

Features:

- Recognized as a Best Management Practice (BMP) for water quality
- Supports vegetated, nature-based erosion control solutions
- Lower carbon footprint than traditional hard armoring methods
- Filters sediment and pollutants from stormwater runoff
- Encourages infiltration and groundwater recharge
- Maintains cooler water temperatures to support aquatic habitats

Outperforms and is more cost effective than conventional methods, including:

- Rock riprap
- Rock slope protection
- Gabions
- Concrete blocks or paving
- Fabric formed revetments

Applications:

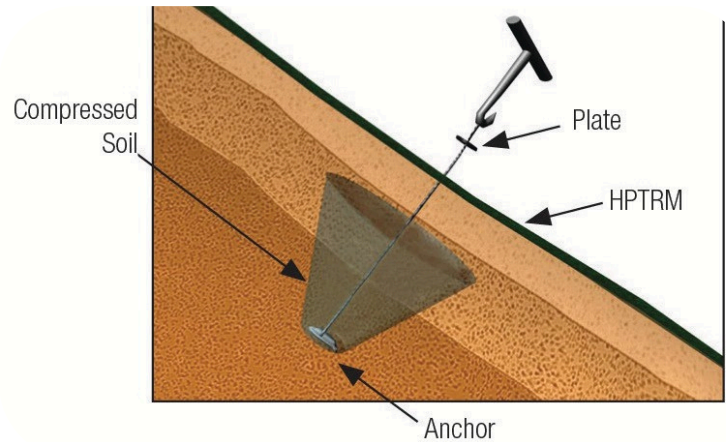
- Earthen dams and spillways
- Roadway embankments
- Stream, river, and canal banks
- Steepened slopes
- Stormwater channels
- Levees and flood control structures
- Wildfire-prone areas and defensible spaces



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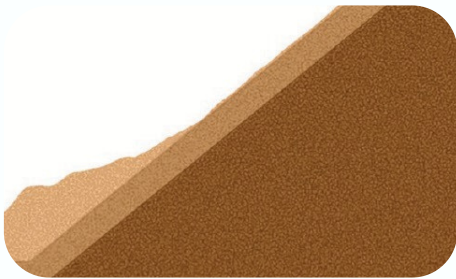
Earth Earth-Engineered Anchors Secure The Mat To The Ground

- Made of corrosion-resistant material to provide considerable mechanical strength and durability during installation and in service.
- Connected to a zinc-aluminum coated carbon steel or stainless-steel tendon to fully enhance corrosion resistance, particularly at the soil air interface.
- As the load exerted on the soil by the PROPEX Armormax® system increases, a body of soil above the anchor is compressed and provides resistance to any further anchor movement, permanently securing the mat to the ground.

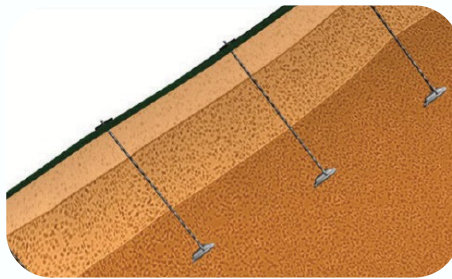


Slope Stability Applications

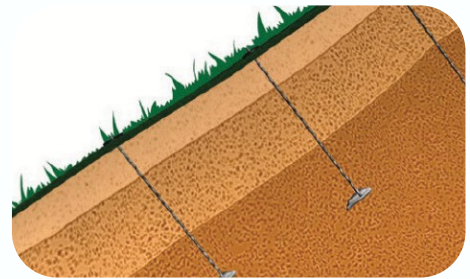
The figures below illustrate the PROPEX Armormax® system in slope stability applications. The system is comprised of the PYRAMAT® HPTRM and typically Type B2 Earth Engineered Anchors (EEAs) as specified by the project engineer.



Shallow Plane Failure



Apply Armormax® System

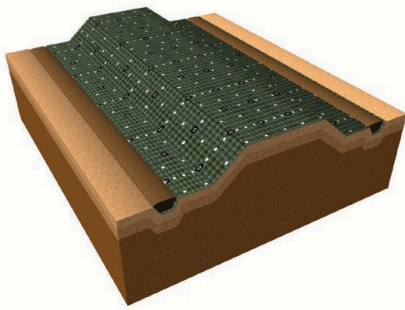


Vegetation Growth

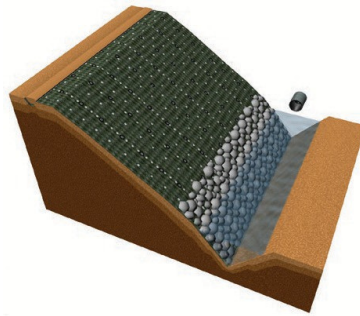


Erosion Control Applications

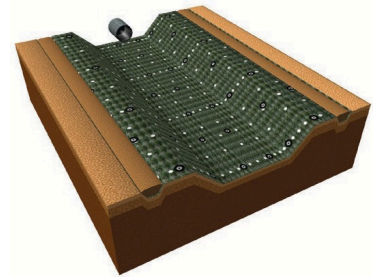
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Levee Armoring



Arid/Semi-Arid Stormwater Channels



Canal, Stream and River Bank Protection

HIGH PERFORMING PRODUCTS BACKED BY COMPREHENSIVE SERVICE

Whether you are a water resources engineer working on a stormwater project or a civil contractor bidding on a project, Titan can help you. We offer underground stormwater management solutions with comprehensive service giving you peace of mind that your site and investment are protected.



PRODUCT SUPPLY

Stormwater management systems are available from all Titan locations. We provide competitive quotes for every component of your stormwater management project.



DESIGN ASSISTANCE

Our stormwater management technical team provides preliminary layout designs. This includes calculations, CAD drawings, and specifications to ensure that your project meets performance criteria and regulatory standards.



INSTALLATION SUPPORT

Our technical expertise extends to supporting contractors on proper installation of stormwater management systems. This helps ensure performance and longevity of a system, and overall project success.

Titan Environmental supplies proven geosynthetics and specialty civil engineering construction solutions designed to extend the life of vital infrastructure while protecting precious natural resources.

We push limits with creative solutions. Our product lines include geomembranes, geotextiles, geogrids, primary & secondary containment systems, stormwater management solutions, drainage solutions, MSE wall & slope systems, and erosion & sediment control products. We service the road construction, agricultural, waste management, water resources, mining, oil and gas, and hydroelectric industries that support essential infrastructure worldwide. By providing engineers with a resilient foundation for building better, we've become North America's fastest-growing-end-to-end geosynthetics supplier, fabricator and installer.

We do more than help manage environmental impact, we help improve how that's done. With a team of audacious innovators and agile problem-solvers, we're trusted to adapt to change, respond quickly, and support you at every stage. When you build with Titan, you strive for your very best.



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