

**ARMORMAX**<sup>®</sup>  
Engineered Earth Armoring System

### **Engineered Earth Armoring System™**

ARMORMAX is the most advanced flexible armoring technology available for severe erosion and surficial slope stability challenges. ARMORMAX is composed of High Performance Turf Reinforcement Mat [HPTRM] and Engineered Earth Anchors™ that work together to lock soil in place and protect against hydraulic stresses.



### **X3® Fiber Technology**

Propex's patented X3 Fiber Technology is designed to accelerate seedling emergence, exhibit high resiliency, and feature strength and elongation properties to limit stretching in saturated conditions.

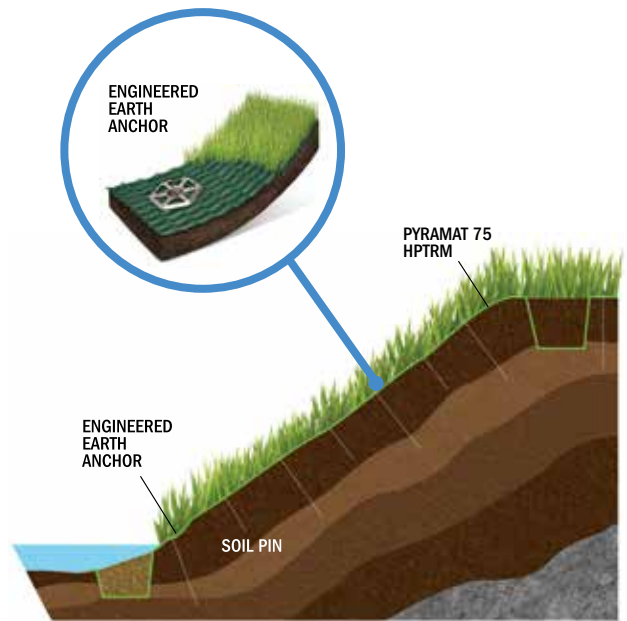
- Netless construction stands-up to the toughest erosion applications where high loading and/or high survivability conditions are required.
- Trilobal shape covers 40% more surface area than conventional fibers to capture moisture, soil and water required for rapid growth.

### **Engineered Earth Anchors™**

Corrosion resistant Engineered Earth Anchors (EEA™) secure the HPTRM to the ground. EEAs are designed to provide resistance to shear and lateral forces, and embed beyond the predicted plane of failure. The ARMORMAX system uses either a B1, B2, or B3 anchor depending on the application and environment.

### **Tested. Proven. Trusted**

PYRAMAT, the HTPRM component of ARMORMAX, was tested at Colorado State University (CSU) on its full-scale wave overtopping simulator. The simulator tests erosion resistance of armoring materials for 500-year resiliency overtopping conditions. Testing showed that PYRAMAT provides increased levee resiliency and durability, and reduces the risk of breaching caused by overtopping waves.



## Features & Benefits

### Design & Performance

- Provides permanent erosion protection for up to 75 years
- Withstands extreme hydraulic stresses
- Provides resistance to shallow plane slope instability
- Provides temporary shoring and stabilization for constructed slopes
- Resistant to non-hydraulic stresses from debris and mowing and maintenance equipment
- Highly UV stabilized for applications with little or no vegetation
- Available in green or tan to complement the natural surroundings
- Outlasts other slope reinforcement methods yielding significant cost savings
- Ease of installation reduces time and labor costs
- Lightweight and easily transported into areas with access challenges

### Environmental

- Recognized by the EPA as Best Management Practice (BMP) for improving water quality
- Filters sediment and pollutants to improve water quality
- Encourages infiltration of water back into the ground water table
- Proven to reduce erosion and reinforce vegetation for low-impact, sustainable design
- Yields a vegetated solution that is more aesthetically pleasing than traditional hard armoring solutions
- Maintains cooler water temperatures than traditional hard armoring, which is healthier for aquatic habitats

## Applications

- Arid and semi-arid environments where vegetation densities of <30% coverage are anticipated
- Earthen Dams & Spillways
- Roadway Embankments
- Canals/Stream Banks
- Steepened Slopes
- Channels
- Levees



## Installation Comparison: ARMORMAX® vs. RipRap

Typical placement of 1 acre, or about 5,000 SY, of erosion protection.

 **ARMORMAX®**

**vs. Riprap**



**\*DAYS 5**

*\*Based on a 4-person crew with equipment operator, working 8 hrs per day.*



**\*\*CONTAINER VAN 1/2**

*\*\*Based on 6" stone size at 18" depth and 15 tons per dump truck.*

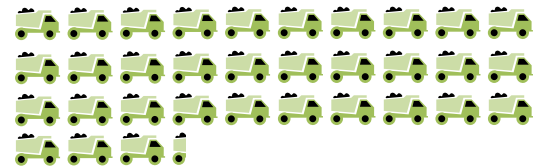


**\*\*\*DOLLARS \$28 PER SY**

*\*\*\*Assuming \$25/ton for material, average fuel and equipment costs, and labor as specified above.*



**\*DAYS 11**



**\*\*DUMP TRUCKS 334**



**\*\*\*DOLLARS \$65 PER SY**

# Armormax Installation Details



**Site Preparation:** Grade and compact the failed slope and remove objects that would prevent ARMORMAX from making direct contact with the soil. Excavate a trench at the crest and toe of the slope.



**HPTRM Laydown:** Unroll the HPTRM on the prepared soil ensuring material has intimate contact with the soil.



**Anchor Installation:** Anchors should be installed in locations specified for the project.



**Vegetation Establishment :** Vegetation can be established by broadcast seeding, hydraulic seed application (hydroseeding), or sodding.

For complete installation guidelines, please visit [PropexGlobal.com](http://PropexGlobal.com) or e-mail [GlobalSupport@PropexGlobal.com](mailto:GlobalSupport@PropexGlobal.com)



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