



High Performance-Turf Reinforcement Mat



Introducing the most complete turf reinforcement mat—ever!

Futerra® R45 High Performance-Turf Reinforcement Mat (HP-TRM) offers advantages over conventional TRMs:

- Breakthrough manufacturing process that integrates a high-tenacity polyester geogrid within thermally fused and entangled, three-dimensional nylon monofilaments to create a homogeneous, three-dimensional structure—no loose fibers, threads or nettings
- High-strength, high-modulus geogrid that acts as an additional tensile element to provide maximum soil and root reinforcement at low elongations—will not stretch
- Withstands wheel loading and resists burrowing animals
- Faster growth establishment and maximum root entanglement
- Enhanced UV stability
- Unparalleled resistance to shear stresses and flow velocities
- Specific gravity >1—facilitates under water installations vs. polypropylene TRMs that float
- Ideal for designs utilizing Percussive Driven Earth Anchors (PDEAs)



Levee armoring application



High Performance-Turf Reinforcement Mat



Replace hard armor systems economically and reliably

Futerra® R45 HP-TRM provides unique properties for demanding and specialized applications such as:

- Levee armoring
- Canal and shoreline protection
- Steep slope and channel stabilization
- Slope failure repairs

Futerra R45 offers the industry’s highest profile, three-dimensional matrix—acting as a “reinforced grip layer” that allows vegetation to withstand periodic light vehicular traffic and mowing/maintenance operations on slopes up to 3H:1V.

Anchor Armor™ ARVS for the most secure stabilization

Our Anchor Armor™ Anchor Reinforced Vegetation Solution (ARVS) is ideal for site-specific geotechnical stabilization and severe erosion challenges requiring higher factors of safety. Anchor Armor ARVS is comprised of Futerra R45 HP-TRM that has been permanently secured to the ground using corrosion-resistant Percussive Driven Earth Anchors (PDEAs).



Platipus® PDEA

PDEAs offer lightweight, corrosion resistant anchorage that can be driven from ground level using conventional portable equipment. Their installation creates minimum soil disturbance; they can be stressed to design-holding capacities and made fully operational immediately. The low-stretch, high-modulus Futerra R45 allows the PDEAs to be placed into tension—creating a creep-resistant, unitized anchorage system to stand up to long-term loads.

Anchor Armor ARVS can be specified for site-specific parameters and geotechnical considerations such as:

- Soil type
- Stability and vertical height of the embankment
- Slope gradient
- Desired factor of safety
- Pore pressure within the embankment

R45 exceeds minimum tensile requirements for FHWA, USACE and US EPA “high performance”, high survivability TRMs.				
	Ultimate Tensile Strength (machine & cross direction)	Tensile Strength @ 2% Strain (machine & cross direction)	Permissible Shear Stress*	Permissible Velocity*
Futerra R45	3000 lb/ft	450 lb/ft	20 lb/ft ²	30 ft/sec

* Testing conducted at Colorado State University Engineering Research Center under fully vegetated conditions. Standard roll size of 8' x 90'.

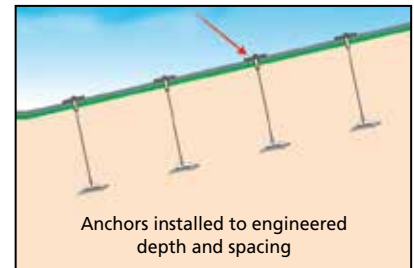


Photo courtesy of Platipus Anchors Inc.

GreenArmor™ System for optimal, sustainable vegetation



The advanced growth establishment methodology of the GreenArmor™ System puts the “turf” into TRMs more effectively than any other. Holding 17 times its weight in water, the System doubles the vegetation establishment rates of other TRMs while increasing erosion resistance prior to germination and growth.

Flexterra® High Performance-Flexible Growth Medium™ (HP-FGM™) is sprayed into the Futerra TRM matrix to provide immediate erosion control and intimately bond soil to seed. This also eliminates the need for additional soil cover which dramatically reduces installation costs and time. With 95% open space, Futerra R45 assures thicker turf establishment and enhanced root reinforcement.



For technical information or distribution, please call (800) 508-8681. For customer service, call (800) 366-1180.

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