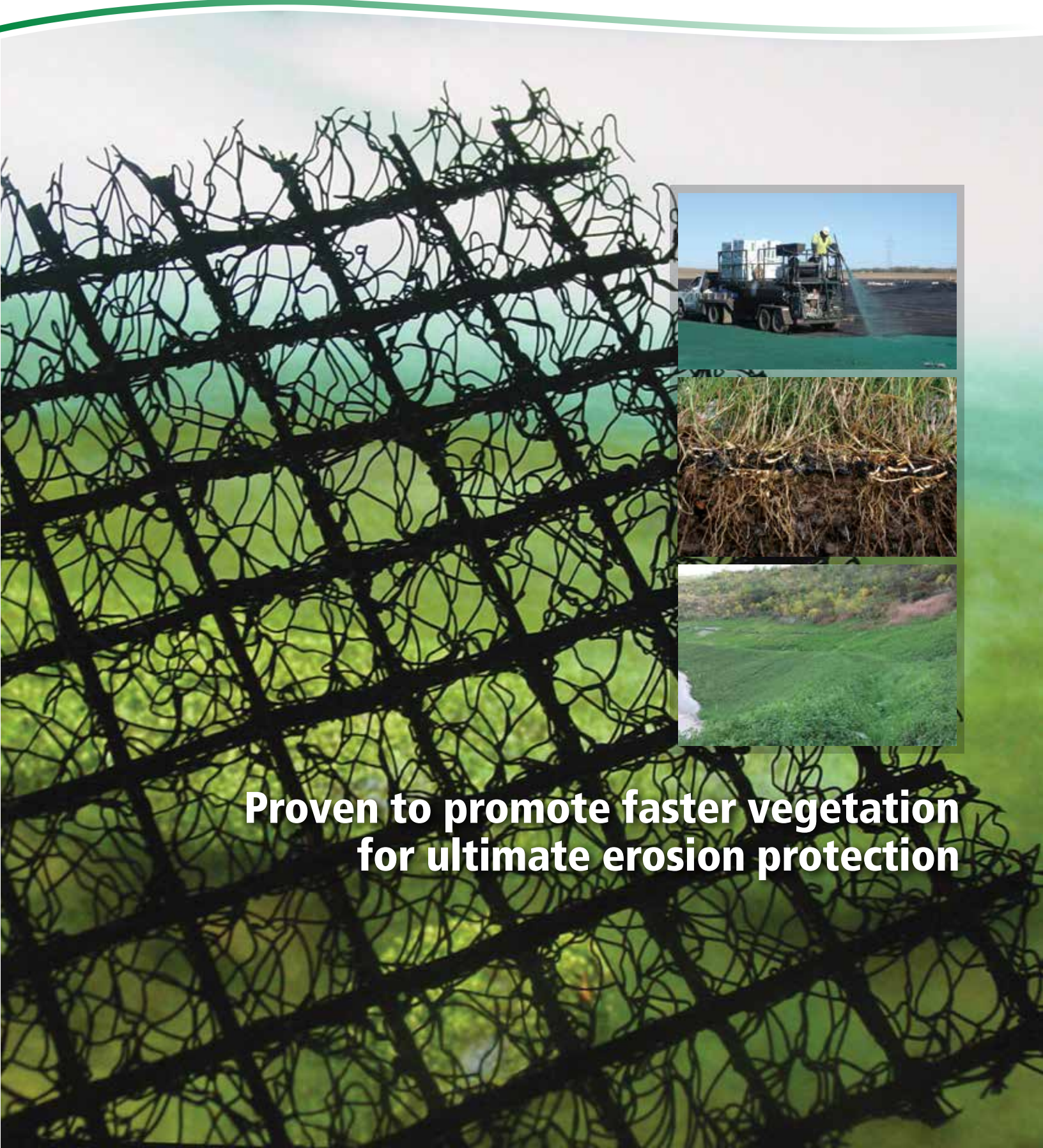


FIBRAMULCH
HYDRAULIC SEEDING MULCH

Futerra[®]
TRM



**Proven to promote faster vegetation
for ultimate erosion protection**

Designed to provide permanent erosion control, Futerra® TRMs foster more rapid and complete vegetation establishment to accommodate higher levels of flow resistance versus conventional Turf Reinforcement Mats. The key is its open, three-dimensional matrix that delivers:



Roots anchored within Futerra TRM matrix

- Homogeneous and resilient structure—critical for structural integrity
- Optimum environment for vegetation establishment—critical for erosion control
- Maximum root entanglement—critical for superior erosion resistance

Exhaustive research has documented that when fully vegetated, Futerra TRMs can provide up to 10 times the performance of unreinforced vegetation.

Futerra TRMs offer a long heritage dating back to the 1970s and the origin of Turf Reinforcement Mats with a growing portfolio of successful installations and applications. Futerra TRMs are ideal for:

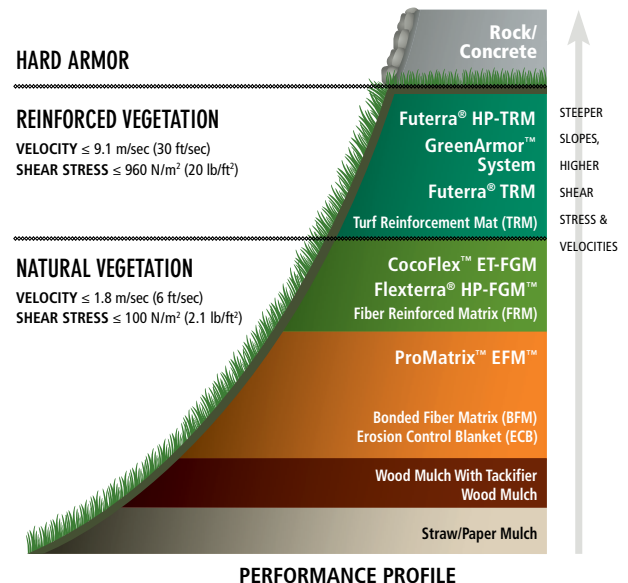
- Ditches and Channels
- Levees and Shorelines
- Stream and Pond Banks
- Steep Slopes

Futerra TRMs replace costly and unsightly hard armor techniques to:

- Anchor plants to the soil to protect vegetation and underlying soil from elevated velocities and shear stresses from concentrated runoff or wave action
- Permanently extend the performance limits of natural vegetation
- Filter pollutants, improve water quality and groundwater recharge, and enhance native ecosystems
- Provide improved aesthetics

Uniquely constructed for permanent protection

- Resilient three-dimensional matrix of thermally fused nylon monofilaments creates the ideal anchor for root reinforcement
- Lofty matrix consisting of 95% open space readily accepts a hydraulic infill, captures soil and encourages vegetative growth
- Unlike stitch-bonded TRM products combining loose fibers, threads and nets, Futerra TRMs resist crushing, unraveling and tearing—during and long after installation
- Durable, UV-stabilized matrix ensures long-term performance



Futerra TRM root growth (left) versus competitive TRM (right)

Options to stabilize your projects from the ground up

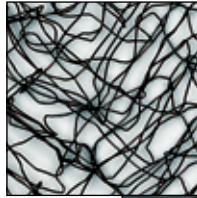
Profile Products provides a portfolio of Futerra® TRM choices to accommodate varying levels of protection and durability for a wide range of projects.

Futerra® TRM 7003

This lighter weight TRM is a cost-effective solution to provide protection of moderate slopes or where flow conditions exceed the limits of natural vegetation.



0.3" thick
7.5 mm



Flexterra® HP-FGM™ applied into TRM 7003



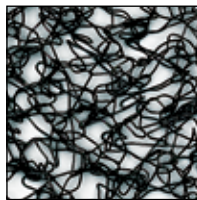
Resulting native grass and wildflower growth

Futerra® TRM 7010

A mid-range TRM designed to fulfill a broad range of general turf reinforcement requirements, especially on steeper slopes and when moderate flow conditions are anticipated.



0.4" thick
10 mm



Slope interceptor ditch on steep slopes



Luxurious growth in just two months

Futerra® TRM 7020

The industry standard designed for stabilization of more challenging sites, including very steep slopes, where higher flow conditions are expected, and an elevated level of performance is needed.



0.75" thick
19 mm



Streambank reconstruction on semi-arid site



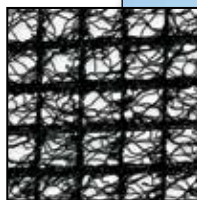
One year later with vegetation emerging

Futerra® R45 HP-TRM

This high performance TRM was developed for extreme slopes and critical structures on challenging sites where extreme flows are anticipated. Enhanced UV stability and very high tensile properties provide heightened durability for severe environmental conditions and resistance to wheel loading from maintenance equipment.



0.75" thick
19 mm



*US Army Corps of Engineers
Levee Construction*



R45 HP-TRM System to Resist Wave Attack

Profile® can provide additional TRM options to accommodate site conditions, including thermally fused geotextile fabric backings and lower cost polypropylene structures.

Installation options

Futerra® TRMs can be installed in three fundamental ways to promote erosion control and faster vegetation establishment:

- Installed over previously prepared and seeded areas
- Installed first, then seeded and filled with soil
- Installed, then the matrix hydraulically infilled with seed and Flexterra® HP-FGM™ to create the GreenArmor™ System



This system combines the rapid growth establishment and unequalled erosion control protection of Flexterra HP-FGM with the permanent dimensional stability of Futerra® TRM.



The open structure of Futerra TRMs allows excellent seed-to-soil contact to instantly bond the Flexterra® HP containing seed and amendments to the soil, resulting in excellent vegetative establishment.



The GreenArmor System can replace or complement unsightly riprap, and is used on many projects to establish sustainable vegetation such as this storm water conveyance channel.

ABOUT PROFILE PRODUCTS LLC

Based in Buffalo Grove, Ill., PROFILE Products LLC offers environmentally preferable, site-specific solutions including soil modification, erosion control and plant establishment. As the industry's leading source of rolled erosion control products, hydraulically-applied mulches and performance-enhancing additives, as well as ceramic conditioners, biostimulants and neutralizers to amend soil, Profile offers on-site solutions and consultation to architects, engineers, land planners, contractors, developers and municipalities. Our team of agronomists, engineers and industry experts is supported through a worldwide network of experienced distributors. Profile...Solutions for your Environment.™

For more information, please contact us at:
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www.fibramulch.com



**GREEN DESIGN
ENGINEERING™**
EARTH-FRIENDLY SOLUTIONS
FOR SUSTAINABLE RESULTS™

Green Design Engineering™ is a holistic approach that combines agronomic and engineering expertise with advanced technologies to provide cost-effective and earth-friendly solutions. Profile strives to deliver Green Design Engineering across our team of consulting professionals, innovative products and educational resources.



PS³ is a free, comprehensive 24/7 online resource you can use to design a project and select the right products that address both the physical and agronomic needs of your site. It will help you develop holistic, sustainable solutions for cost-effective erosion control, vegetation establishment and subsequent reductions in sediment and other pollutants from leaving disturbed sites. Because good plans start with the soil, PS³ offers free soil testing to ensure this critical step is considered.

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