

High Performance Erosion Control

Flexterra® HP-FGM™

Profile®





Profile's 5 Fundamentals are the Foundation to Sustainable Vegetation

Establishing sustainable vegetation and receiving the earliest possible Notice of Termination (NOT) are the goals of every project. Profile's 5 Fundamentals are the surest way to get you there. Picking the right erosion control material like Flexterra® HP-FGM™ is just one of the 5 steps.



1. Assess and Create Optimal Soil Conditions

Soil testing provides essential information to determine what soil amendments, if any, are required to assure a more favorable growing environment for faster, more complete vegetative growth and sustainable establishment.



2. Pick the Right Plant Species

It is essential to select plant species that are adapted to the site conditions.



3. Select the Correct Erosion Control Material

The right cover protects both seed and soil, and facilitates growth. Flexterra HP-FGM is unsurpassed in delivering outstanding performance.



4. Ensure Proper Installation

Products must be installed in accordance with manufacturer recommendations to maximize their performance.



5. Follow-up Inspections and Maintenance Practices

Continual monitoring ensures all site compliance issues are being addressed. Maintenance may be required to mitigate unexpected challenges.

Profile provides valuable assistance for each of these Fundamentals 24/7—beginning with FREE soil testing. Visit profileps3.com.

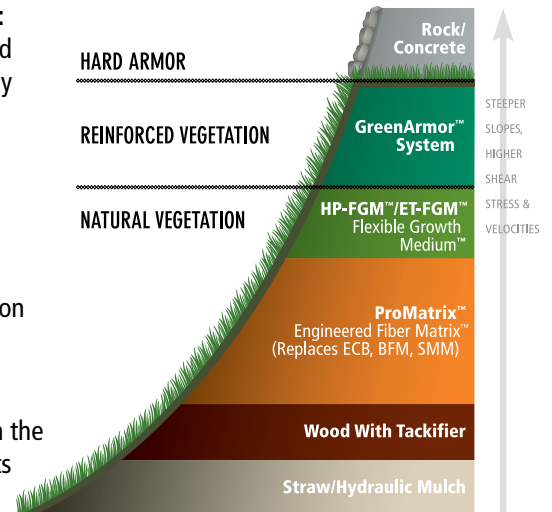
FLEXTERRA® HP-FGM™

Absolutely the Most Effective Erosion Control Medium Available

Flexterra® HP-FGM™ stands alone as the ultimate erosion control and revegetation product. Fine grading and extensive soil preparation are unnecessary, allowing you to apply the product for immediate protection and superior performance at reduced overall costs.

Flexterra HP-FGM Delivers:

- The highest germination and growth establishment of any rolled or other hydraulically applied erosion control product available
- Greater than 99% erosion control effectiveness immediately upon application
- 100% biodegradable
- Non-toxic and safe for even the most sensitive environments



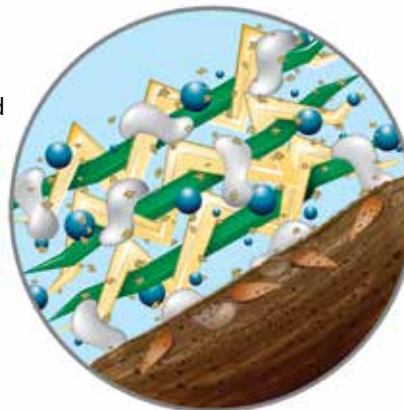
Superior erosion control across Profile's spectrum of products ensures reliable, sustainable solutions for slopes, channels, shorelines, water management projects, pipeline restorations, waste and fly ash containment sites, fine turf areas and other environmentally sensitive sites.

Patented Technologies and Greener Components Deliver Unmatched Performance

Flexterra HP-FGM combines both chemical and mechanical bonding techniques to lock the engineered medium in place and promote accelerated germination with minimal soil loss. Greener from the inside out, here's what makes it work so well:

Revolutionary patented Micro-Pore particles optimize water and nutrient retention

100% recycled, virgin Thermally Refined® wood fibers produce the highest yield and coverage per unit weight, and are phyto-sanitized, eliminating weed seeds and pathogens



100% non-toxic biopolymers and water absorbents enhance erosion control resistance and growth establishment

100% biodegradable interlocking fibers increase mechanical bonding of the matrix to provide immediate performance upon installation

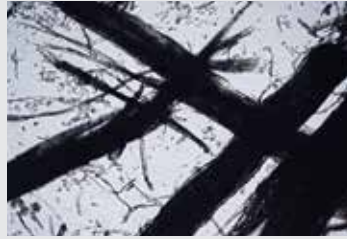
A Closer Look at Micro-Pore Particles and Thermally Refined® Wood Fibers



- Micro-Pore particles capture and hold moisture and nutrients, reduce soil surface evaporation and improve oxygen exchange, which all contribute to faster, more uniform vegetation establishment.
- Micro-Pore particles also increase bond strength of the flexible growth medium, resulting in greater resistance to raindrop impact and sheet flow.



Fibers magnified 45 times by independent lab specializing in fiber analysis.

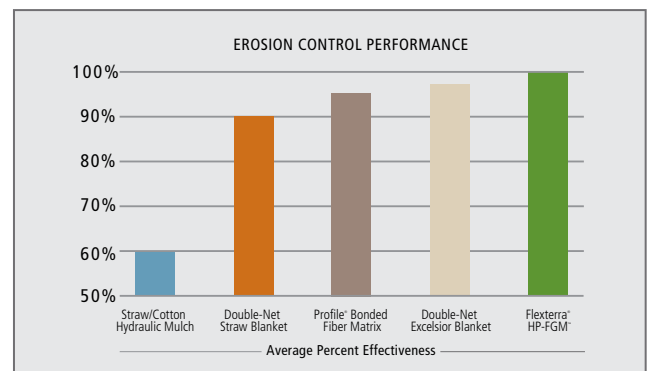


Inferior wood fibers magnified 45 times.

- 100% recycled, Thermally Refined® virgin wood chips create fine, long and highly absorbent fibers that deliver superior yield, coverage and water-holding capacity.
- Competitive refining technologies develop inferior fibers that require more bales to achieve the coverage of Profile's Thermally Refined wood fiber matrices. Additionally, claims that competitive mulches save or use less water during application just don't hold water.

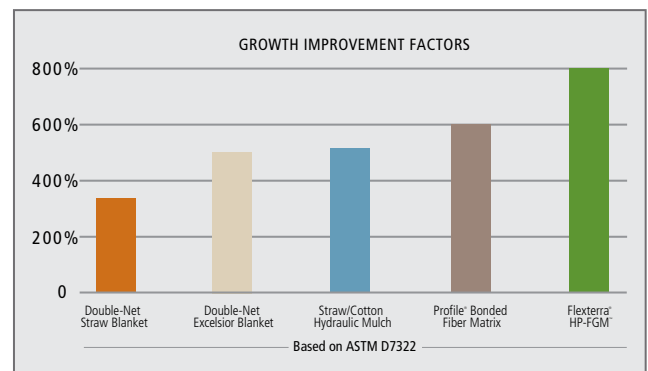
Nothing Keeps More Soil On Site

Flexterra® HP-FGM™ has demonstrated nearly perfect erosion control performance — even on slopes as severe as 0.25H:1V. In addition to minimizing soil loss, the turbidity of runoff is greatly reduced. In large scale testing, Flexterra HP-FGM reduced effluent turbidity of sandy loam soils to less than 250 Nephelometric Turbidity Units (NTUs).



Establishes Vegetation More Reliably

Quicker and complete establishment is the key to long-term erosion control. Flexterra HP-FGM has recorded the highest growth establishment rating of any erosion control product in independent laboratory testing using standard test method ASTM D7322.

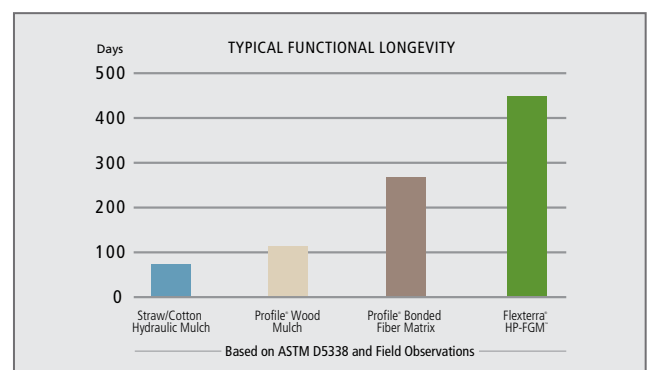


The First Erosion Control Product to Offer Documented Functional Longevity

ASTM D5338 testing protocol confirms Flexterra HP-FGM's observed functional longevity of up to 18 months. Flexterra HP-FGM is proven to last longer than other hydraulically applied erosion control products.

Long-lasting Flexterra HP-FGM is designed to:

- **Provide protection on bare soil over periods of dormancy;** assures that when more optimal growing conditions arrive, the seed and nutrients are still in place and in an environment conducive to rapid germination and emergence.
- **Increase survivability of plants;** exceptional water retention nurtures vegetation to better withstand environmental stress.
- **Accommodate a broad range of vegetative species;** safeguards and helps to cultivate even the slowest establishing species.



Flexterra® HP-FGM™ Technical Data:

	TEST METHOD	UNITS	TESTED VALUE
PHYSICAL PROPERTIES*			
Mass/Unit Area	ASTM D6566 ¹	g/m ² (oz/yd ²)	≥ 390 (11.6)
Thickness	ASTM D6525 ¹	mm (in)	≥ 5.6 (0.22)
Ground Cover	ASTM D6567 ¹	%	≥ 99
Water-Holding Capacity	ASTM D7367	%	≥ 1,700
Material Color	Observed	n/a	Green
ENVIRONMENTAL PROPERTIES*			
Biodegradability	ASTM D5338	n/a	Yes
Ecotoxicity	EPA 2021.0	%	48-hr LC ₅₀ > 100%
Effluent Turbidity	Large Scale ⁵	NTU	< 250
PERFORMANCE PROPERTIES*			
Cover Factor ²	Large Scale ⁵	n/a	≤ 0.01
Percent Effectiveness ³	Large Scale ⁵	%	≥ 99
Functional Longevity ⁴	ASTM D5338	months	≤ 18
Cure Time	Observed	hours	0-2
Vegetation Establishment	ASTM D7322 ¹	%	≥ 800
PRODUCT COMPOSITION			TYPICAL VALUE
Thermally Processed ⁶ (within a pressurized vessel) 100% Recycled Virgin Wood Fibers			80%
Wetting agents (including high-viscosity colloidal polysaccharides, cross-linked biopolymers, and water absorbents)			10%
Crimped Biodegradable Interlocking Fibers			5%
Micro-Pore Granules			5%

* When uniformly applied at a rate of 3,500 lb/ac (3,940 kg/ha) under laboratory conditions.

1. ASTM test methods developed for Rolled Erosion Control Products that have been modified to accommodate Hydraulic Erosion Control Products.
2. Cover Factor is calculated as soil loss ratio of treated surface versus an untreated control surface.
3. Percent Effectiveness = One minus Cover Factor multiplied by 100%.
4. Functional Longevity is the estimated time period, based upon field observations, that a material can be anticipated to provide erosion control and agronomic benefits as influenced by composition, as well as site-specific conditions, including; but not limited to—temperature, moisture and light conditions, soils, biological activity, vegetative establishment and other environmental factors.
5. Large Scale testing conducted at Utah Water Research Laboratory. For specific testing information, please contact a Profile technical service representative at 800-508-8681 (US and Canada) or International - +1-847-215-1144.
6. Heated to a temperature greater than 380 degrees Fahrenheit (193 degrees Celsius) for 5 minutes at a pressure greater than 50 psi (345 kPa).



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

Green Design Engineering™ is a holistic approach, combining environmentally beneficial design and ecologically sound products with agronomic and erosion control expertise, to provide the most effective, customized and cost-efficient solutions for erosion control and vegetative establishment.



PS³, Profile's unique online project design and management software, is the best place to start applying The 5 Fundamentals™ to your next project. The process begins with a FREE soil test, and walks you through every Fundamental. It's the only program of its kind that integrates and compares a variety of technologies to your specific project parameters, and provides complete documentation including product specifications, installation guidelines, CAD details and other pertinent technical information. Get started by visiting ProfilePS3.com.



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