

High Performance Erosion Control

Flexterra® HP-FGM™





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 cover 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 adjustments, if any, need to be made 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 all project parameters.



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 all manufacturer recommendations to maximize their performance.



5. Follow-up Inspections and Maintenance Practices

Continual monitoring is the only way to ensure 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.

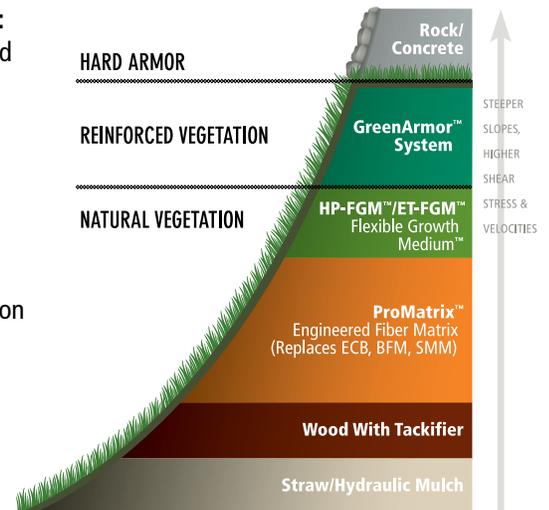
FLEXTERRA® HP-FGM™

Absolutely the Most Effective Erosion Control Medium Available

Flexterra® HP-FGM™ represents the next generation in Flexible Growth Media and is proven to surpass the original's outstanding performance. 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 blanket or other hydraulically applied mulch available
- Greater than 99% erosion control effectiveness immediately upon application
- 100% biodegradability
- Safe for even the most sensitive environments because it's non-toxic



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**

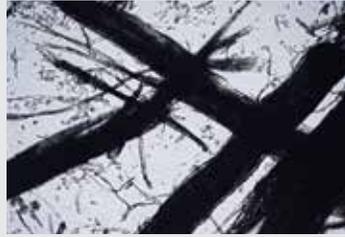
A Closer Look at Micro-Pore Particles and Thermally Refined® Wood Fibers



- Micro-Pore particles trap 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 erosion control effectiveness of the flexible growth medium, resulting in increased 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, virgin wood chips are Thermally Refined® in a process that creates fine, long and highly absorbent fibers that deliver superior yield and coverage, and water-holding capacity.
- Competitive refining technologies develop inferior fibers. You need 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 turbidities of sandy loam soils to less than 250 Nephelometric Turbidity Units (NTUs).

Establishes Vegetation More Reliably

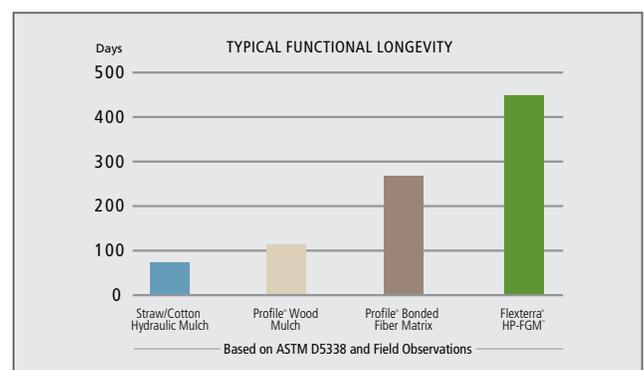
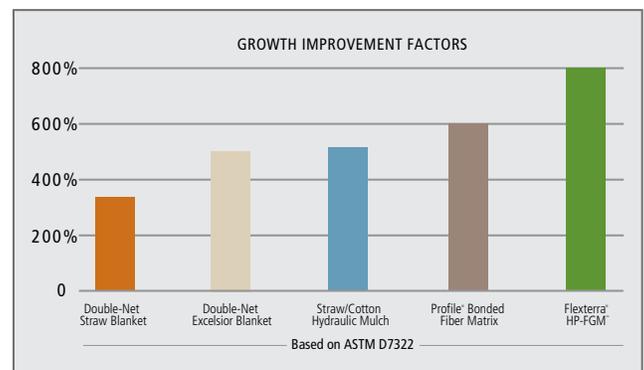
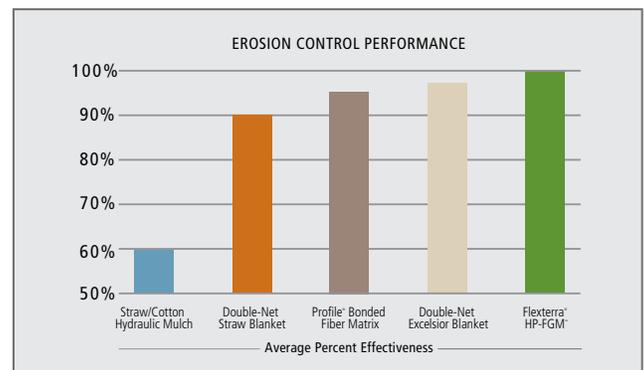
Quicker and complete establishment is the key to long-term erosion control. Compare Flexterra HP-FGM to the average values of other technologies as documented in published AASHTO-NTPEP reports and independent laboratory testing using standard test method ASTM D7322.

The First Erosion Control Product to Offer Documented Functional Longevity

The ASTM D5338 protocol confirms Flexterra HP-FGM's observed functional longevity of up to 18 months. As illustrated in these test results, 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 germination and emergence.
- **Increase survivability of plants;** exceptional absorptive properties nurture 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	%	≥ 1700
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 ³	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) 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 3500 lb/ac (3900 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.
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 manufacturers' products 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.



Solutions for your Environment™

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