



EcoMatrix® EFM™

Engineered Fiber Matrix®



Description

EcoMatrix® EFM™ is a biodegradable, Engineered Fiber Matrix® composed of 100% recycled, Thermally Refined™ virgin wood fibers, crimped biodegradable interlocking fibers derived from regenerated cellulose sourced from sustainably harvested wood, micro-pore granules, mineral activators and wetting agents (including high-viscosity colloidal polysaccharides, cross-linked biopolymers, and water absorbents). The EFM is patented, made in the US, plastic-free, and phytosanitized to eliminate potential weed seeds and pathogens. When cured, EcoMatrix forms an intimate bond with the soil surface to create a continuous, porous, absorbent and flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth. EcoMatrix performs as a Bonded Fiber Matrix (BFM) product and may require a 4-24 hour curing period to achieve maximum performance.

Recommended Applications

- Erosion control for slopes ranging from mild to extreme (≤1H:1V)
- Meets or exceeds performance of Bonded Fiber Matrix (BFM)
- Equivalent performance to most erosion controlled blankets
- Rough graded slopes
- Enhancement of vegetation establishment

Technical Data

Physical Properties*	Test Method	Units	Tested Value
Mass/Unit Area	ASTM D6566 ¹	g/m ² (oz/yd ²)	≥ 393 (11.6)
Thickness	ASTM D6525 ¹	mm (in)	≥ 4 (0.16)
Ground Cover	ASTM D6567 ¹	%	≥ 98
Water Holding Capacity	ASTM D7367	%	≥ 1,400
Material Color	Observed	n/a	Green
Performance Properties*	Test Method	Units	Tested Value
Cover Factor ²	ASTM D8298-Type 1	n/a	≤ 0.05
Percent Effectiveness ³	ASTM D8298-Type 1	%	≥ 95
Vegetation Establishment	ASTM D7322	%	≥ 600
Functional Longevity ⁴	ASTM D5338	months	≤ 12
Cure Time	Observed	hours	4-24
Environmental Properties*	Test Method	Units	Tested Value
Ecotoxicity ⁵	EPA 2021.0	n/a	Non-Toxic
Biodegradability	ASTM D5338	n/a	Yes
USDA BioPreferred® Biobased Content	ASTM D6866	%	97
Elemental Impurity Limits	ASTM D8082	Pass/Fail	Pass
Carbon Footprint ⁶	Life Cycle Assessment	Unit CO ₂ e/Unit of product ⁷	≤0.4
Product Composition			Typical Value
Thermally Processed Wood Fibers ⁸ (within a pressurized vessel)			77 %
Wetting Agents - including high-viscosity colloidal polysaccharides, cross-linked biopolymers, and water absorbents			18 %
Crimped Biodegradable Interlocking Fibers derived from regenerated cellulose sourced from sustainably harvested wood			2.5 %
Micro-Pore Granules			2.5 %



Made in USA

Packaging Data

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*When uniformly applied at a rate of 3,500 pounds per acre (3,900 kilograms/hectare) 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. % 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, light conditions, soils, biological activity, vegetative establishment and other environmental factors. 5. 48-hour LC₅₀ > 100% - LC₅₀ refers to the percent concentration of a substance in water when 50% percent mortality of an organism is reached. 50% mortality of the tested species (*Daphnia magna*) could not be achieved when subjected to 100% effluent concentration proving the material to be acutely non-toxic. 6. Cradle to factory gate (Conover, NC) life cycle assessment. 7. "Carbon dioxide equivalent" or CO₂e is a term for describing different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO₂e signifies the amount of CO₂ which would have the equivalent global warming impact. The unit of CO₂e per unit of product is a consistent ratio based on mass, regardless of what unit of mass is chosen. For instance, there is 0.4 kg of CO₂e per kg of product or 0.4 oz CO₂e per oz of product. 8. Heated to a temperature greater than 380 degrees Fahrenheit (193 degrees Celsius) for 5 minutes at a pressure greater than 50 psi (345 kPa) in order to be Thermally Refined™/Processed and to achieve phytosanitation.

Properties	Test Method	Units	Value
Bag Weight	Scale	kg (lb)	22.7 (50)
Bags per Pallet	Observed	#	40

UV and weather-resistant plastic bags. Pallets are weather-proof stretch wrapped with UV resistant pallet cover.

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