



ProMatrix™ Engineered Fiber Matrix



Description

ProMatrix™ Engineered Fiber Matrix™ (EFM™) is 100% biodegradable, made in the United States and is composed of 100% recycled, thermally refined (within a pressurized vessel) virgin wood fibers, crimped interlocking biodegradable fibers derived from regenerated plant sources, mineral activators and wetting agents (including high-viscosity colloidal polysaccharides, cross-linked biopolymers, and water absorbents). The EFM is phytosanitized, free from plastic, and when cured 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. The EFM 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 |
|--|--------------------------|---------|-------------------------------|
| Thickness | ASTM D6525 ¹ | mm (in) | ≥ 4 (0.16) |
| Ground Cover | ASTM D6567 ¹ | % | ≥ 98 |
| Water Holding Capacity | ASTM D7367 ¹ | % | ≥ 1,400 |
| Material Color | Observed | n/a | Green |
| Performance Properties* | Test Method | Units | Tested Value |
| Cover Factor ² | Large Scale ⁴ | n/a | ≤ 0.05 |
| Percent Effectiveness ³ | Large Scale ⁴ | % | ≥ 95 |
| Cure Time | Observed | hours | 4-24 |
| Vegetation Establishment | ASTM D7322 ¹ | % | ≥ 600 |
| Functional Longevity ⁵ | ASTM D5338 | months | ≤ 12 |
| Environmental Properties* | Test Method | Units | Tested Value |
| Ecotoxicity | EPA 2021.0 | % | 48-hr LC ₅₀ > 100% |
| Biodegradability | ASTM D5338 | n/a | Yes |
| Certified BioPreferred [®] Biobased Content | ASTM D6866 | % | 97 |
| Product Composition | Typical Value | | |
| Thermally Processed Wood Fibers ⁶ | 77 % | | |
| Wetting Agents - including high-viscosity colloidal polysaccharides, cross-linked biopolymers, and water | 18 % | | |
| Crimped, Biodegradable Interlocking Fibers derived from regenerated plant sources | 2.5 % | | |
| Micro-Pore Granules | 2.5 % | | |

* When uniformly applied at a rate of 3500 pounds per acre (3900 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. Large scale testing conducted at Utah Water Research Laboratory and Texas Transportation Institute. For specific testing information please contact a Profile technical service representative at 800-509-8681 or +1-847-215-1144. 5. 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. 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) in order to be Thermally Refined™/Processed and to achieve phytosanitization.

Packaging Data

| 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.