Rainier Fiber™ Bonded Fiber Matrix

DESCRIPTION

Rainier Fiber™ Bonded Fiber Matrix is made from clean, western softwood chips. Added to the long strand 100% virgin wood fibers is a high strength, non-toxic, hydrocolloid-based and cross-linked organic tackifier giving the product extra holding power. *No synthetic or plastic fibers,* which are not naturally biodegradable, are added or blended into the pure wood fiber.

The system sprays on like mulch and forms a blanket that adheres to the soil surface. When dry, the blanket matrix is porous, erosion resistant and protects the soil surface. The matrix retains its integrity and soil protection despite re-wetting. When applied over the soil surface, the wood fibers twist and interlock with each other and the soil as they dry. With the added tackifier, the holding power of the fiber to the soil is much stronger than mulch without tackifier, thus providing increased erosion protection.

Rainier Fiber™ Bonded Fiber Matrix is 100% biodegradable and is non-toxic to animal, aquatic organisms, fish or plant life.

ADVANTAGES

- No synthetic or plastic fibers, which do not naturally biodegrade, are added to the fiber.
- Stronger bonding of the fibers to the soil, increasing erosion protection.
- Mat blanket retains integrity after repeated rains.
- Conforms to all surface contours. Eliminates tenting and rilling.
- Has no germination or growth inhibiting factors.
- High temperature 177°C (350°F) steam and thermo-mechanical refining sterilizes the fiber.
- No viable noxious or other plant seed in the fiber. All seeds are sterilized.
- Tackifier hydrates quickly in the slurry.
- Tackifier additive is homogeneously mixed with the fiber. It's all in the same bag.

Rainier Fiber™ Bonded Fiber Matrix is fast to load in hydroseeding equipment from easy-to-handle plastic bags. The fibers are sized for maximum loading in a tank, and they make a homogeneous slurry of water, seed and fertilizer. The fibers remain in suspension during agitation and pumping, and the slurry does not dewater when doing hose work.

The green color allows the operator to apply an even application of material over the soil surface. The colorant added to the fiber during manufacture is non-toxic to animal, aquatic organisms, fish or plant life.

PRODUCT FEATURES

- Made from selected, fresh cut, clean, 100% whole wood chips.
- Fiber stays in uniform suspension and blends with seed and fertilizer.
- Goes into slurry quickly.
- Forms a stable erosion control mat.
- Provides favorable micro-climate for fast seed germination.
- Pumps easy in hydromulching machines.
- BFM has no growth inhibiting factors.
- Fibers decompose after plants have established.

Rainier Veneer, Inc. P.O. Box 1250, Graham, WA 98338 Tel: 253-846-0242 Fax: 253-846-0220

PRODUCT SPECIFICATIONS

Rainier Fiber™ Bonded Fiber Matrix is manufactured to specific fiber sizes in a heat controlled environment to provide best job-site performance. The virgin wood chips are softened by high temperature 177°C (350°F) steam, and the thermo-mechanical refining process produces long, soft, woolly fibers. The fibers have physical features that tend to intertwine with each other, thus forming a more protective blanket. The BFM is totally free from lead paint, printing ink, varnish, petroleum products, seed germination inhibitors, or chlorine bleach.

Composition	**Test Method**		**Tested Value**
Thermo-Mechanical Refined Virgin Wood Fiber		(total weight basis)	90%
Proprietary Cross-Linked Tackifier		(total weight basis)	10%
Crimped Wood Fiber		(total weight basis)	Not Required
Micro-Pore Granules		(total weight basis)	Not Required
Physical Properties	**Test Method**		**Tested Value**
Moisture Content	ASTM D 2974 / CA-Test 226	(total weight basis)	8.0% ± 3.0%
Organic Matter	ASTM D 586 AASHTO T-267	(oven dried weight basis)	97.0% min
Ash Content	AASHTO T267 / TAPPI T-413	(oven dried weight basis)	0.3%
pH @ 3% Concentration	SW846 9045D		4.5±0.5
Water Holding Capacity (min)	ASTM D 7367*		1200%
Color	Observed		Green or Blue
Fiber Length	ASTM D 7560	25%=10mm (3/8 inch)	
Sieve Retention	ASTM D 7560	50% retained on 25 mesh (710 µm) sieve	
Mass / Unit Area	ASTM D 6566 (mod) Large Scale**	g/m2 (oz/yd2)	388 (11.45)
Thickness	ASTM D 6525 (mod) Large Scale**	mm (in)	> 5.7 (0.22)
Ground Cover	ASTM D 6567 (mod) Large Scale**		> 99%
Performance Properties	**Test Method**		**Tested Value**
Percent Effectiveness	ASTM D 6459 (mod)		>99%
Vegetation Enhancement	ASTM D 7322		>599%
Functional Longevity	Observed***		>12 Months
Erosion Control Technology Council HECP Classification			Long Term
Maximum Slope Application	Observed		1.0H : 1.0V
Cover Factor	ASTM D 6459 - Large Scale**		0.01
Environmental Properties	**Test Method**	**Citation Method / Notes**	**Results**
Ecotoxicity	EPA 2019.0	96-hr LC50 > 100%	Pass / NOEC
Acute Toxicity	EPA-821-R-02-012	96-hr LC50 > 100%	Pass / NOEC
Biodegradability	ASTM D 5338		Pass
Heavy Metals	EPA 6020A	ND	Pass
Solvents	EPA 6020A	ND	Pass
Boron Content	EPA 6020A	< 50 ppm	Pass
Elemental Impurity Limits	EPA 1668	> 0.003 ppm	Pass
USDA BioPreferred	ASTM D6866	BioBased Content	***Pending***
Recommended Rates	**Pounds Per Acre**	**Kilogram Per Hectare**	
3.0H : 1.0V to 2.5H : 1.0V	2,500 to 3,000	2,800 to 3,360	
2.5H : 1.0V to 2.0H : 1.0V	3,000 to 3,300	3,370 to 3,695	
2.0H : 1.0V to 1.0H : 1.0V	3,300 to 3,500	3,695 to 3,920	
1.0H : 1.0V & Steeper	3,500 to 4,000	3,920 to 4,480	
Packaging	**Dimensions**	**Quantity**	**Pallet Weight**
50 Pound Bale	10"x19"x29" Bale/48”x48”x102” Pallet	40 Bales Per Pallet	EST >2,100 lbs.

* Water Holding Capacity results are the average of two most recent tests ** Large scale testing conducted at TRI Environmental, Inc and has been submitted to AASHTO's NTPEP in 2014.
*** Functional Longevity is the estimated time period, based upon environmental & jobsite factors. For specific testing information please contact Tony Kopp for consultation at 509-368-0700.

Apply the BFM to make a uniform mat. If more than 2500 lbs/acre (2800 kg/ha) is applied the spraying should be done in two applications. Spray from two opposite directions to avoid light coverage, or shadowing, on the back side of ridges, rocks and depressions. Application works best when BFM is sprayed sufficiently in advance of rainfall to allow some drying time. Allow enough drying time between applications so some dry spots are showing on the surface of the mat.

FOR MORE INFORMATION PLEASE CONTACT:

PINNACLE EROSION CONTROL SUPPLY
SPOKANE, WA 99206
509-368-0700
tkopp@pnwpinnaclesupply.com