



EcoSolutions® EcoFibre® Hydraulic Mulch — Wood



Description

EcoSolutions® EcoFibre® is a fully biodegradable, Hydraulic Mulch (HM) composed of 100% recycled Thermally Refined™ wood fibers derived from whole wood chips. The HM is phytosanitized, free from plastic netting, and upon application forms an intimate bond with the soil surface to create a porous, absorbent and flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth.

Recommended Applications

- Erosion control and revegetation for moderate slopes ($\leq 2H:1V$)
- Rough graded slopes
- Enhancement of vegetation establishment

Technical Data

Physical Properties*	Test Method	Units	Tested Value
Mass/Unit Area	ASTM D6566	g/m^2 (oz/yd ²)	≥ 336 (9.9)
Water Holding Capacity	ASTM D7367	%	$\geq 1,100$
Material Color	Observed	n/a	Green
Performance Properties*	Test Method	Units	Tested Value
Cover Factor ¹	Large Scale ²	n/a	≤ 0.30
Percent Effectiveness ³	Large Scale ²	%	≥ 70
Functional Longevity ⁴	ASTM D5338	months	≤ 3
Environmental Properties*	Test Method	Units	Tested Value
Ecotoxicity	EPA 2021.0	%	48-hr LC ₅₀ > 100%
Biodegradability	ASTM D5338	n/a	Yes
Product Composition			Typical Value
Thermally Refined Wood Fibers ⁵			100%

* When uniformly applied at a rate of 3000 pounds per acre (3400 kilograms/hectare) under laboratory conditions. 1. Cover Factor is calculated as soil loss ratio of treated surface versus an untreated control surface. 2. Large scale testing conducted at Utah Water Research Laboratory. For specific testing information please contact a Profile technical service representative at 800-508-8681 or +1-847-215-3464. 3. % Effectiveness = One minus Cover Factor multiplied by 100%. 4. Functional Longevity is the estimated time period, based upon ASTM D5338 testing and 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. Heated within a pressurized vessel 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 phyto-sanitization.

Packaging Data

Properties	Test Method	Units	Nominal 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.			

Profile Products

750 Lake Cook Road, Ste. 440
Buffalo Grove, IL 60089
800-508-8681 or +1-847-215-3464
www.profileproducts.com

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PRODUCT DATA SHEET

PLANTAGO

B i n d e r / T a c k i f i e r

DESCRIPTION

Plantago Binder is a natural, 100% psyllium fiber derived from the outer coating of the seed. It is a solid beige-tan powder used as a binding agent with hydroseeding mulch for seeding or erosion control applications. Plantago Binder has proven to be effective in holding fiber in place, improving grass stands and reducing overall erosion. It is a stable non-toxic dust with no components listed as carcinogens.

CHARACTERISTICS

Active Ingredient: 100% Psyllium

% Protein content	1.6 ± 0.2%	Ash content	2.7 ± 0.2%
% Settleable solids	5.0% ± 0.5%	Fiber	4.0 ± 0.4%
1% Solution pH	6.5 - 8.0		
% Total Nitrogen	2.68		

USES

Plantago Binder may be applied as a wet slurry or to dry surfaces in the following applications. To be used in well ventilated areas with a dust mask, goggles and rubber gloves for safety measures. The material is slippery when wet, sweep up any spills and avoid washing them down.

*Erosion control

*Dust Control

*CDOT compliant

*Binding agent

APPLICATION RATES

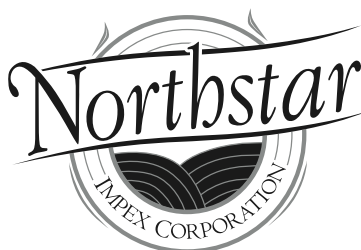
40 to 160 pounds per acre depending on degree of slope.

Prepare the slurry by mixing seed, mulch, fertilizer, Plantago Binder and water in the tank in the amounts specified. Add all material slowly and mix thoroughly. It should be stored in a cool dry place.

PACKAGING

50 lb. heavy duty paper bags.

Palletized at 40 bags/pallet (2,000 lb.)



TEL: 951.486.0441 FAX: 951.486.0118 www.northstarimpex.com

PLANTAGO BINDER

B i n d e r / T a c k i f i e r

SPECIFICATIONS:

MULCH: Wood fiber or clean paper free of impurities at the rate of 1,000 to 2,000 pounds per acre.

BINDER: Apply Plantago Binder at the following rates by adding slowly to tank to avoid clumping.

As a binder for hydromulch:

4:1 slopes use the rate of 60 pounds per acre.

2:1 slopes use the rate of 100 pounds per acre.

1:1 slopes use the rate of 160 pounds per acre.

As a straw tackifier:

2:1 or greater slopes use the rate of 100 pounds per acre.

3:1 and flatter slopes use the rate of 60 pounds per acre.

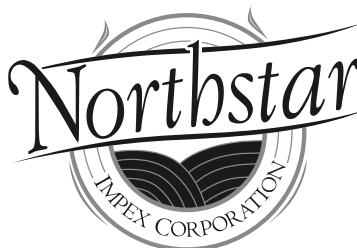
Use the rate of 160 pounds per acre for high wind areas.

As a dust control:

60-150 pounds per acre.

FERTILIZER: Pre-plant fertilizer is recommended. Apply as specified. Consider existing soil conditions and plant species seeded.

MIXING: Slurry shall contain mulch, seed fertilizer, Plantago Binder and water in the proper proportions as specified. The material shall be mixed thoroughly to ensure a homogenous slurry. The slurry shall have the proper consistency to adhere to the slope surface without running or lumping.



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Tren Hagman
490 East 76th Ave.
Denver, CO 80229

tren@graniteseed.com
Phone: (720) 496-0600
Fax: (720) 496-0601

Date: November 27, 2019
To: Kevin Langham
Company: 814 Solutions
From: Tren Hagman
Re: Seed Submittal for Top Golf

This Letter is to serve that your company has contracted Granite Seed Company to provide the seed for the Top Golf Project. The seed mix for this project can be provided as specified. The table below shows the mix we will provide for this project. A seed certification will accompany your order identifying individual species, lots, varieties, origin, and pure live seed information.

Species	PLS lbs./acre
'Hachita' Blue grama (<i>Bouteloua gracilis</i>)	7.00
'Niner' Sideoats grama (<i>Bouteloua curtipendula</i>)	5.00
Needle and thread (<i>Hesperostipa comata</i> ssp. <i>Comata</i>)	2.00
Indian ricegrass (<i>Achnatherum hymenoides</i>)	2.00
Prairie junegrass (<i>Koeleria macrantha</i>)	1.00
Galleta grass (<i>Pleuraphis jamesii</i>)	1.00
Total:	18.00

All seed supplied will be in compliance with State and Federal Seed noxious weed laws, with proper labeling and documentation. If you or anyone associated with this project has questions or need anything else at this time, please contact me at the number provided in the header of this document.

Tren Hagman
