



Specification

Product Name: Verdyol Virgin BFM (Bonded Fiber Matrix)

1.1 Summary

- A. This specification specifies a hydraulically-applied erosion control mulch that is 100% biodegradable wood fiber with proprietary bonding material that produces a bonded fiber matrix for enhanced erosion control and vegetation growth. The wood is thermally and mechanically processed and contaminant free. Once applied the hydraulic mulch forms a porous and absorbent erosion control environment that helps vegetation growth and thrive.

1.2 Submittals

- A. Product Data: Submit manufacturer's product data and installation instructions. Include required soil preparation and application rates.
- B. Certification: Manufacturer shall certify that the product meets or exceeds all physical properties, endurance, performance and packaging requirements.

1.3 Delivery Storage and Handling

- A. Deliver material and products in UV and weather-resistant packaging that has factory labels to identify the product. Store and handle according to manufacturer's instructions and recommendations.

Products

2.1 Product Composition/ Property Values

- A. All components of the Hydraulic Mulch shall be prepackaged by the manufacturer to assure both material performance and compliance with the following values:

Thermo - mechanically processed	100% wood fiber
Water holding capacity	1200% minimum
Proprietary Blend of Polymers and Cross Linking Tackifiers	10% Maximum

Color	Green
Moisture Content	12% (+/- 3%)
Biodegradable	100%
Toxicity	Non-Toxic

2.2 Packaging

- A. Bags weight = 22.5kg (50lbs), UV stabilized
- B. Pallets: 4 way wood pallets with product stretch wrapped with plastic
- C. Pallet Quantity: 40 bags per pallet.

EXECUTION

3.1 Seedbed Preparation

- A. Prepare soil where the material will be applied to meet the following requirements:
 - a. Soil is sufficiently decompacted so that water will penetrate the soil layer.
 - b. The soil is geotechnically stable
 - c. Run on of water to the seeded area is control during vegetation establishment
 - d. Soil test for organic quantity: If organics are less then 3% of soil then amend with Biotic Earth Black hydraulic growth medium.

3.2 Installation

- A. *Equipment:* Contractor shall use a working hydraulic seeding machine that has sufficient size and agitation to continually mix the slurry and spray with enough pressure through a fan type nozzle (50-degree tip) to achieve optimal soil surface coverage.
- B. *Mixing:* Mix Verdyol Virgin BFM with approximately 125 gallons of water per 22.5kg bag. Follow these steps
 1. Purge pump, tower, and hose to insure that there are no obstructions.
 2. Determine number of bags for desired load amount and place on top of machine.
 3. Close any recirculation valves if equipped.
 4. Fill machine with water to main agitator shaft.
 5. Engaged agitator to moderate or desired speed.
 6. Add mulch material and water at a speed that allows you time to add all bags desired for a load.
 7. If adding seed, fertilizer, or other amendments, add these items when $\frac{3}{4}$'s of tank is full.

- 8. Once all bags and water levels are achieved, increase agitator speed to full and mix to desired consistency. Reduction of agitator speeds may be required on thicker slurries

C *Application:* Hydraulic mulch should be applied from opposing directions to ensure complete coverage of irregular soil surfaces. If the mulch is not applied in two opposing directions a “shadowing” effect may occur. Ideally, the mulch will be applied from the toe of slope and the top of slope. However, this is not practical for all projects due to access feasibility. It is acceptable for when the contractor does not have access to both the top of slope and bottom of the slope for the contractor to apply the hydraulic mulch from location for which they have access. For such scenarios, the contractor can spray forwards and then backwards as their tank proceeds parallel to the slope. This equates to the mulch being applied in two directions as the mulch will hit any angulations from adjacent directions.

- a. A two step process is acceptable and will apply the seed first and then secondly the mulch. When applying the seed it may be applied by drill seeding or by a broadcast method. The broadcast method may be of a conventional methods or a hydraulic method
- b. Application in Channels is not recommend and an erosion control blanket or turf reinforcement mat is to be used in these situations.

D. *Application Rates:* The Following Application rate chart should be used

<i>Slope Gradient</i>	<i>Metric</i>	<i>Standard</i>
<i>Flat</i>	<i>3400kg/ha*</i>	<i>3000lbs/acre*</i>
<i>4:1 and less</i>	<i>3950kg/ha*</i>	<i>3500 lbs/acre*</i>
<i>3:1 and less</i>	<i>4500kg/ha*</i>	<i>4000lbs/acre*</i>
<i>Greater than 3:1</i>	<i>5100kg/ha*</i>	<i>4500lbs/acre*</i>

**Excess surface roughness may require these rates be increased to achieve a minimum 75% coverage.*

3.3 Cleaning and Maintenance

- A. Cleanup of overspray can be achieved with using clean water and rags as soon as spray occurs.
- B. Thoroughly clean work area and any spill after application is complete. Flush out tank in approved.
- C. Protect newly seeded area from any traffic either machine, human or animal until the seed is fully established on the area.
- D. Vegetation needs water to grow, if during the establishment.

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