

## **PermaMatrix<sup>®</sup> Installation Instructions for use with Erosion Control Mulches or other short, medium, or long term erosion control mulch products.**

PermaMatrix<sup>®</sup> (BSA) and any Hydraulic Erosion Control Product (HECP) can be installed in successive applications.

PermaMatrix<sup>®</sup>, a hydraulically applied biotic soil amendment is the sustainable growing medium needed to support and sustain vegetation on disturbed or depleted soils. It is the “concentrate”, or in other words, the “living component” of soil that is now available in a form that provides for a highly efficient, cost effective application method using water as the carrying agent to transfer the biotic soil amendment to the target area.

If a long term erosion control mulch product is required because of slope, season of application, or the erosion potential of a site, a BFM or FGM can be installed to STABILIZE the seed in place throughout a dormant season.

By utilizing both of these technologies, hydraulically applied biotic soil amending, and the traditional soil/seed stabilization process, you can leverage your existing hydro-seeding business into an area that has traditionally been performed by pneumatic (air) or mechanical (bulldozers, dump trucks, and track hoes) means. In today’s competitive marketplace, doing more with less is the very definition of sustainability!

A two-step process is the recommended method of application.

First, install PermaMatrix<sup>®</sup> at 4,000 pounds per acre, along with the specified seed mix and any fertilizer required. Include NaturalTac<sup>™</sup>, (an organic polysaccharide) at the rate of 1 lb. per bag of PermaMatrix<sup>®</sup> or 80 pounds per acre. Apply the slurry in a multi-directional pattern to eliminate any shadowing that might occur. On steeper slopes a layering technique might be necessary to achieve the required 4,000 lbs. / acre (100 lbs. / 1000 sf) application rate. Achieve 100% coverage of the surface area which will result in PermaMatrix<sup>®</sup> approximately 1/2” – 5/8” deep.

The load capacity of PermaMatrix<sup>®</sup> is 133 lbs. per 100 gallons of water for tower work, and 125 lbs. per 100 gallons of water for hose work. Load capacities are determined by how much PermaMatrix<sup>®</sup> your machine can effectively discharge. The primary function of NaturalTac<sup>™</sup> in your tank is to increase the viscosity of the slurry. The ancillary benefit of NaturalTac<sup>™</sup> is the binding or adhering of the slurry to the soil surface.

Allow PermaMatrix<sup>®</sup> with Natural Tac<sup>™</sup> to set up to a stable consistency. This will typically occur quickly with temperature, soil moisture content, wind, and sun influencing the length of time to a stable surface.

The second step is the installation of an erosion control mulch material. Both long term and short term mulch products have been used effectively in conjunction with PermaMatrix<sup>®</sup>. Vegetation of a healthy, sustainable herbaceous cover is the end goal of a PermaMatrix<sup>®</sup> application, while erosion control mulch material, weather long term or short term, is STABILIZATION of the seeded layer. Install all erosion control mulch material in a manner that meets the manufacture’s recommended rate or the specified rate of application on your project.



### **MIXING INSTRUCTIONS AND FILL ORDER FOR PERMA MATRIX®:**

Begin filling the tank with water - Engage the agitator at ½ speed  
At ¼ of tank capacity begin loading PermaMatrix® into tank  
Add seed and/or fertilizer when the water level reaches ½ full  
Load all of the PermaMatrix® needed before tank reaches ¾ full.  
Have all material; seed, fertilizer, and PermaMatrix loaded by ¾ full  
Add NaturalTac™ @ a range of 1 lb. / bag of PermaMatrix® after all other material is in the tank  
Continue filling the tank with water until full with agitators engaged  
Begin spraying keeping the gun or nozzle in constant motion  
Continue to agitate throughout the application

### **MIXING INSTRUCTIONS AND FILL ORDER FOR EROSION CONTROL MULCH**

Fill 1/3 of mechanically agitated hydro-seeder with water - It is always a good idea to flush the pump and hoses with fresh water to ensure clog free applications.

Continue slowly filling tank with water while loading fiber mulch into the tank.  
Erosion control mulch material should be completely loaded before water level reaches ¾ full.

Fill tank to capacity.

Long Term Hydraulic Erosion Control Products (HECP's) require fully hydrated slurry. Typically a longer mix time is required to achieve proper viscosity and fully activated bonding agents, (10 minutes is a rule of thumb —increase mixing time when applying in cold conditions).

Shut off recirculation valve to minimize potential for air entrainment within the slurry.

Slow down agitator and start applying with a 50-degree fan tip nozzle.

Apply in a multi-directional aspect to achieve maximum soil coverage.