

## HYDROBOND PLUS

### *Hydroseeding Tackifier and Biostimulants*

Hydrobond Plus is a linear anionic polymer combined with a highly active biostimulant formulation. The tackifier can be used with any paper, fiber or combination product. The high molecular weight linear anionic polymer binds the hydroseeding media to the soil particles. Unlike guar that forms a thin film barrier and repels water, Hydrobond Plus is hydrophilic and allows water into the mulch matrix. Hydrobond Plus provides a better environment for seed germination. Hydrobond Plus is free of weed seed and any organic containments. It is compatible with fertilizers, dyes and surfactants. The polymer will not clump in the tank and clog the spray nozzle. Hydrobond Plus lubricates the slurry and tightens the stream and increases the shooting distance.

The biostimulant formulation in Hydrobond Plus is all natural that is specifically formulated to enhance biological activity in the soil profile. It promotes the establishment and enhances the viability of seeding. The diverse microbial formulation contains strains of beneficial bacteria, actinomycetes and fungi augmented with a proprietary blend of targeted microbial nutrients designed to promote rapid establishment in the rhizosphere. This helps promotes the plants with increased resistance to environmental extremes, heat, cold, drought, minimizing the incidence of nutrient leaching and stabilizing the soil pH by increasing humus levels.

### **BENEFITS:**

- Reduces soil erosion
- Bonds mulch matrix to the soil
- Increases performance of the mulch matrix
- Increases biological activity in the soil
- Increases seed growth and establishment
- Economical and easy to apply

### **APPLICATION RATES:**

Add the appropriate amount of Hydrobond Plus into the hydroseed tank based on site conditions such as slope, type of soil, ph and climate.

Pounds/Acre:	3	9-12
Slope:	Flat to 4:1	3:1 and steeper

### **PRODUCT CONTENTS AND CHARACTERISTICS:**

Each pound of material contains over 400 grams of a high weight linear anionic polymer with over 56 billion CFUs of beneficial bacteria derived from over 18 strains and a proprietary blend of microbial nutrients (Amino Acids, Vitamins, Kelp and Humic Acid).

#### **Biostimulant:**

Pseudomonas:	Stimulates natural plant growth hormones. Nitrogen fixation.
Streptomycetes:	Decomposes organic matter, improves soil structure and enhances nutrient uptake by extending root system with thread like hyphae.
Trichoderma:	Nutrient solubilization, stimulates natural plant growth
Saccharomyces:	Produces vitamin B groups, enzyme producer.
Bacillus:	Enhances plant growth, decomposes organic matter and pesticide residue. Solubilize minerals including phosphorous for plant availability. Enhances seed germination and viability of emerging seedlings.

#### **Chemical:**

	Anionic linear copolymer of acrylamide
Bulk Density:	0.80
Molecular Wt.:	15-18 mg/mole
Viscosity:	2350 cps
Charge Density:	30.0%
Residual monomer:	< 0.05%
Acute toxicity:	Non toxic, refer to MSDS for full information

Complies and Certified with NSF International ANSI/NSF 60, drinking water.

Information supplied as a guideline only, it does not constitute any specification. Liability is not assumed nor any freedom from any existing patent.

## HYDROSEED PLUS

### *Hydroseeding Polymer, Mycorrhizal Fungi and Biostimulants*

Hydroseed Plus is an amendment for hydroseeding that includes a water storing polymer, high propagule and spore counts of beneficial mycorrhizal fungi and a specially formulated biostimulant formulation. Hydroseed Plus is designed to increase seed germination and the growth and establishment of new turf grass and other seeds. The polymer in the amendment is a crosslinked polyacrylamide with potassium salt base. The polymer will hold over 200 times its weight in tap water rated at 160mg of NaCl/liter of water. The grade size of 100-700 microns insures that it hydrates faster in the hydroseed tank and goes into a homogenous mixture. When applied on the ground, the polymer in the mulch matrix is a water source for the seed and provides a better medium for seed germination and establishment. Each pound of polymer will hold over twenty gallons of water.

There are seven species of endomycorrhizal fungi in Hydroseed Plus. Mycorrhizal fungi is found in undisturbed soils with other beneficial soil organisms. Today's common practices such as site preparation, tillage, mining, road and building construction degrade the mycorrhizal forming potential of soils. These activities plus unchecked erosion can reduce and eliminate these beneficial soil fungi. The reintroduction of mycorrhizal fungi in areas where they have been disturbed and depleted can dramatically improve seed establishment and growth. The roots of newly planted seed are colonized by the fungus. The colonization extends far into the soil and are extensions of the root system. The fungi improve water and nutrient uptake. A highly active biostimulant with high colony forming units (CFUs) from fifty strains of bacteria is included along with amino acids, vitamins and humic acid.

#### **BENEFITS:**

- Increases plant growth and establishment
- Increases seed germination
- Reduces waterings on new seedlings
- Reduces fertilizer leaching and runoff

#### **APPLICATION RATES:**

Use three to four pounds of Hydroseed Plus per 1000 gallons of mix. Slowly pour the product in the tank after water and other ingredients are being agitated in the tank. After the materials are mixed, wait five to ten minutes before spraying. Depending upon the water retention desired, soil type, site conditions and type of mulch applied, one acre will require nine to sixteen pounds of mix per acre.

#### **PRODUCT CONTENTS:**

Each pound of Hydroseed Plus contains:

- 6.3 ounces of Soil Moist crosslinked polyacrylamide, 100-700 micron size.
- 36,600 propagules per pound of material derived from seven species of endomycorrhizal fungi.
- 56 billion CFUs per pound of beneficial bacteria derived from over 50 strains. Vitamins, amino acids, kelp and humic acid is included.

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