

## SOIL EROSION POLYMERS



FI-2050L is a linear emulsion polymer that contains 55% active ingredients. The medium molecularweight anionic charged density polymer allows it to be used in a variety of soil erosion applications. FI-2050L can be used as a temporary soil erosion product on slopes and hillsides by itself or with mulch materials. The product can be used to reduce dust and control storm water runoff and erosion.

The anionic high molecular weight polymer binds the soil particles and binds the mulch to the soil when used as an additive. FI-2050L is hydrophilic and allows water to penetrate the material and go into the soil or mulch matrix. It provides a better environment for seed germination and establishment by allowing the water in the mulch matrix. FI-2050L is synthetic and free of weed seed and any organic containments. It is compatible with fertilizers, biostimulants, mycorrhizal fungi and surfactants. It improves the performance of any paper or fiber mulch. It will not clump in the tank or clog the spray nozzle. FI-2050L will lubricate the slurry mixture and tightens the slurry stream.

### BENEFITS:

- Reduces soil erosion
- Binds any mulch matrix to the soil
- Provides an environment for increased seed germination
- Economical and easy to apply

### APPLICATION RATES:

**Hydroseeding:** There must be enough water in the tank to cover the agitators. While adding more water to the tank with the agitation on, **slowly pour** the proper amount of FI-2050L from the chart below. Do Not allow the product to splash while adding to the tank. Add mulch, seed and any other amendments to the tank while it is agitating. Mix for a minimum of 5-10 minutes to ensure uniform mixing of the material. Product should be diluted with a minimum of 2500 to 3000 gallons of water per acre to ensure proper coverage. The below chart should be used as a guideline only. Actual rates may vary due to soil type, traffic, rainfall and other environmental conditions:

Gallons/Acre	4	3	2	1
Slope	1:1	2:1	3:1	4:1 to flat

**Clarifying sediment/holding ponds:** Apply 4-10 ppm depending upon the type of water, the level and turbidity and the type of suspended solids. A million gallon pond would require 4 gallons up to 10 gallons. Product should be slowly poured near a source of water turbulence such as a pond aerator. The product works best if a stock solution is first made and then slowly poured or sprayed on. A standard stock solution is 0.5% active. As an alternative, mix the required amount in a hydroseed with 1000 gallons of water (use 2000 gallons if 8-10 gallons of FI-2050L is required), thoroughly agitate for 15 minutes and spray over the surface of the water.

**Temporary Dust Control:** Apply to non-traffic areas only at a rate of one gallon per acre with 1000 gallons of water on flat surfaces and up to four gallons on 1:1 slopes.

### Product characteristics:

Chemical:	Anionic linear copolymer of acrylamide emulsion
Appearance:	Milky white liquid
Active Solids:	55.0% +/- 1%
Bulk density:	8.7
Maximum Concentration:	5g/l
Viscosity:	1840 cps

### Acute Toxicity:

Fish:	LC/50 Pimephales Promelas/96 hours > 100 mg/l
Daphnids:	LC/50 Daphnia magna/48 hours > 100 mg/l
Biodegradation:	Not readily biodegradable
Complies and Certified with NSF International ANSI/NSF 60, drinking water.	

Data on application rates is provided for information purposes only. Application rates will vary according to soil conditions, soil type, slope, condition of water, flow rate and temperature of water. Information is supplied as a guideline only; it does not constitute any specification. Liability is not assumed nor any freedom from any existing patent.

## HYDROBOND™ Hydroseeding Tackifier Amendment

**HydroBond** (FI-1045/FI-1046) is a safe, non-toxic linear anionic polymer that can be used with any paper or fiber mulch products. The anionic high molecular weight polymer binds the hydroseeding media to the soil particles. Unlike guar products that form a thin film barrier and repels water, HydroBond is hydrophilic and allows water into the mulch matrix. By bonding the mulch matrix to the soil and allowing water into the matrix, HydroBond provides a better environment for seed germination and establishment.

HydroBond is a synthetic material that is free of weed seed and any organic containments. It is compatible with biostimulants, fertilizers and surfactants. HydroBond improves the performance of any mulch material. It will not clump in the tank and clog the spray nozzle. HydroBond lubricates the slurry mix and tightens the slurry stream and will increase the shooting distance.

Economical and easy to apply, only three pounds per acre is required. While providing a better environment for seed establishment, HydroBond will break down from UV light in 5-6 weeks.

HydroBond can be used as a temporary dust abatement in non-traffic areas. On flat areas or slopes of less than 6:1, only three pounds per acre is required. HydroBond can be applied as a temporary soil stabilizer to protect against erosion. HydroBond can be applied through hydraulic equipment for clarifying sediment/holding ponds.

### BENEFITS:

- Economical and easy to apply
- Bonds mulch matrix to the soil
- Reduces erosion
- Increases performance of mulch matrix
- Lubricates and tightens slurry stream
- Compatible with other hydroseeding amendments

### APPLICATION RATES:

**Hydroseeding:** Slowly pour in the appropriate amount of Hydrobond into the hydroseeding tank while water is in the tank agitating. Continue mixing then add seed, mulch and any other additives. Rates vary depending upon soil type, site/ environmental conditions and slope.

Pounds/Acre	15	12	9	6	3
Slope	1:1	2:1	3:1	4:1	Flat

### Clarifying sediment/ holding ponds:

Normal amount to apply is 4-10 ppm depending upon the type of water and the level of turbidity. A million gallon pond would require 15 to 42 pounds. Product should be poured near a source of water turbulence such as pond aerators. The product works best if a stock solution is first made and slowly poured or sprayed on. A standard stock solution is 0.5% active. As an alternative, mix the required amount in a hydroseeder with 1000 gallons of water (use 2000 gallons if 30-42 pounds of material is needed), thoroughly agitate for 15 minutes and spray over the surface of the water.

**Temporary Dust Control:** Apply to non-traffic areas only at a rate of 3 pounds per acre with 1000 gallons of water on flat surfaces and up to 15 pounds on 1:1 slopes.

### Product characteristics:

#### FI-1045/FI-1046

Chemical:	Anionic linear copolymer of acrylamide
Appearance:	White granular
Bulk Density:	0.80
Molecular Weight:	6.5 to 18 mg/mole
Viscosity:	2150 to 2410 cps
Residual Acrylamide:	< 0.05%
Acute Toxicity:	
Fish:	LC/50 Pimephales Promelas/96 hours > 4000mg/l.
Daphnids:	LC/50 Daphnia magna/48hours > 5000mg/l.
Algae:	IC/50 Scenedesmus subspicatus/72 hours > 500mg/l.
Biodegradation:	Not readily biodegradable
Complies and Certified with NSF International ANSI/NSF 60, drinking water.	

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