# Soil stabilization polymer for road construction

## **Description:**

- 1. It 's a chemical that can be applied to disturbed soils at construction sites to reduce erosion and improve settling of suspended sedment.
- 2. Increase the soil's available pore volume, thus increasing infiltration and reducing the quantity of stormwater that can cause erosion. Suspended sediments from treated soils exhibit increased flocculation over untreated soils. The increased flocculation aids in their deposition, thus reducing stormwater runoff turbidity and improving water quantity.
- 3. It's polymer-based materials used to facilitate erosion control and decrease soil sealing by binding soil particles, especially clays, to hold them on site. In addition, these types of materials may also be used as a water treatment additive to remove suspended particles from runoff.
- 4. Environmentally friendly; non-toxic to plants&animals; non-corrosive will not change PH of soil or water.

# **Specification:**

Apprearance	White powder
Molecular weight	High
Purity	100%
Dissolving time	<1hour
Recommanded concentration of solution	0.1%-0.3%

### **Advantages:**

- 1. Improves stability of problem soils to prevent soil detachment (i.e. prevents erosion) in the first place
- 2. Provides quick stabilization where vegetation has yet to be established
- 3. Promotes flocculation (reduces settling time) of smallest particles
- 4. Increases soil pore volume and permeability, thus decreasing imperious cover
- 5. Less obtrusive than some conventional measures doesn't interfere with construction machinery/activity
- 6. Convenient and easy to apply and store along with other soil amendments (fertilizer, mulch, etc.) with conventional seeding, mulching, or irrigation equipment
- 7. Material is specifically designed for the soil, waters, and other on site characteristics
- 8. May prevent costly repair and reshaping of rilling or failing slopes
- 9. Re-application may not be necessary for several months if treated areas are mulched
- 10. Reduces seed, pesticide, and fertilizer (phosphorus and nitrogen) losses that hinder vegetation establishment on site, increase costs, and promote nutrient and chemical loading offsite
- 11. Reduces windborne dust conditions

### **Function:**

- A. Flocculation Mechanism: Adsorbing suspension particles, polymer chains entangle and cross-link each other to form bridging, and make flocculation structure enlarge and thicken, and has the functions of surface adsorption and electric neutralization.
- B. Reinforcing Mechanism: molecule chain and dispersed phase form bridging bond, ion bond and covalent bond to increase combination strength.

## **Usage Area:**

Unpaved dirt roads; Construction sites and roads; Heavy haul roads; Road base and sub-base;

Storage and stock piles; Power plants; Helipads.

Airport infields; Mine tailings and areas; Land development; Construction parking areas; Event parking lots; Road shoulders; Slopes and berms; Forest roads; Agricultural roads; Border patrol roads; Golf courts and trails; Parks and recreations; Storage lots and ponds; Dust control

