# MINING APPLICATION PROTOCOLS

## TOPICAL AND "MINI STABILIZATION" TECHNIQUES

The key to mining applications due to the extreme friction from the rear posi-traction axles is applying a higher dilution over a longer period of time, (dilution is the solution)! We want the Earthbind® Stabilizer, (EB-S), to work its way down into the top 1" + of soil through time.

We use a 4:1-6:1 dilution on compacted aggregate roads but dilute to 8:1-12:1 on some mining applications. Water is the carrier of the EarthBind® formulation and using a higher water dilution allows for the EB-S to be carried deeper into the surface without excessive amounts of EB-S on the surface at a time to avoid tracking and picking up of the concentrate onto the truck tires. This application protocol works very well. Remember dilution is the solution.

Generally we try to get a 0.10 - 0.15 gallon/sq. yard down as a base course, over perhaps a period of a week of multiple high dilute applications. Then you must put into your cost the maintained applications, (determined at mine), to protect the base course from the friction wear that occurs from the heavy trucks. But you must realize the base course must be maintained. EB-S will build in inventory NOT diminish like other products, additionally EB-S increases in strength from high UV and high temperatures.

We can ship you any amount of EB-S and as discussed pricing is dependent on volume and totes verses bulk shipping. A truck load quantity of totes is 5000 gallons, (15-330 gallon totes). Bulk transfer 5000 gallons or rail tanker 20,000 gallons the pricing drops significantly. We also manufacture in South America and beyond to reduce the shipping into those areas.

I would suggest you look for a short run from excavation to crusher or a haul road that we can address "track on", so we do not track dirt and mud onto our newly applied black road. We have also addressed this with a "lead up apron", meaning we will apply a 0.10 gallon/sq. yard to 1 mile of 75-150' wide road. We will then apply a 0.03-0.05 gallon/sq. yard to 100 yards before this road and after, to allow for the truck tires to relieve as much dirt onto the apron before the applied road. Or simply locate a road that can be controlled. We have found that it is best to let the road dry down before applications, as we prefer the road on the dry side since the water is the carrier and do not want interference with dilution with a wet road. If the road is wet, the EB-S will not penetrate the road surface on first application.

In mining extreme duty switch back turns the posi- track axles will literally grind any aggregate surface, stabilized or not. We have incorporated railroad steel tracks into the turns placing the 6"-12" apart and at a depth of 12"-18" deep, then fill in with stabilized EB-S at 2% solution. This will allow for greater longevity of those difficult tight turns.

We have also found that "mini stabilizations", (1" depth) prove excellent for long term stability in medium duty especially in turns and slopes. We use a serrated grader blade and apply the EB-100 then simply grade it into the top 1" and let the truck tires compact the surface. We have also trained our truck drivers to "offset" their line of travel to help uniformly compact a newly applied surface by driving on the areas that are between their tires to and from excavation. The

grading operation taking shallow smoothing cuts can help with this mini stabilization when smoothing the roads when needed. Just remember the EB-S stays in the soil/aggregate so windrow it back onto the road not to the side.

Mining applications: protecting the road surface from 500–700-ton rock trucks traveling at two minute intervals we recommend a topical application on 100% compacted roads.
It makes little sense to dig up a 100%+compacted road only to recompact it again incorporating EB-S unless the soils need additional stability: Marshall-Stability-Testing.docx-11920-.pdf (globalstabilization.com)

Earthbind® Emulsion manufacturing is our key to the excessive strength we can provide: Emulsion-Manufacturing-2.pdf (globalstabilization.com)

How does Earthbind® differentiate from other emulsions: Earthbind® vs. Asphalt Cutbacks - Global Stabilization LLC

For our Spanish speaking friends: Product Information in Spanish - Global Stabilization LLC