Annual comparison of Lignin versus EarthBind-100

**LIGNIN:** CIF pricing: $1.00 per gallon
(Based on 22,500 gallon bulk rail delivery with application rate of 0.5 gallons/M2)

1. Prepare road before application, Grader, water truck, and roller: $2.15 per square meter
2. Material cost of Lignin 0.5 gallons per square meter @ $.50 cents per square meter
3. Initial applied cost $2.65 per square meter

Lignin will leach from the soil with each rain event meaning a significant rain event would result in re-application of material resulting in increased overall costs. Should four rain events occur within one season, the total cost of incorporating lignin as a fugitive dust control agent would be $10.60 per season. This takes in consideration that grading and rolling will be required for each application.

**EarthBind-100:** CIF pricing: $7.00 per gallon
(Based on 5200 gallon bulk truck delivery with initial application rate of 0.44 liters/M2)
(“Bulk rail deliveries quoted at CIF $6.65 per gallon/$1.757/liter)

1. Prepare road before application, Grader, water truck, and roller: $2.15 per square meter.
2. Material cost of EarthBind-100 @ 0.44 liters per square meter @$.815 cents/ sq. meter.
3. Initial applied cost $2.965 per square meter

Because EarthBind-100 does not leach from soils after rain events and occasional maintenance does not normally require re-grading and compaction. EarthBind-100 will build up in the soil and subsequent maintenance applications require less material each time.

**Recommended Maintenance Application**
We recommend maintenance applications of EarthBind-100 with a Bear Cat or similar computer rate controlled truck to ensure a uniform application. The estimated cost for this equipment is $.11 cents/ sq. meter. Annual maintenance applications are estimated at 0.22 liters per square meter $0.4075 per square meter. **Estimated total annual maintenance applications of EarthBind-100 are $0.5175 per square meter including computerized applicator truck**

**Full Depth Stabilization**
Full Depth Deep stabilization will use 0.66 liters per square meter for each 25 millimeters of thickness. A 10 centimeter lift will use 2.64 liters per square meter plus a top coat for a wearing surface of 0.36 liters per square meter. Total amount is 3 liters per square meter.

**Annual Cost Savings**
Based on the above, the estimated annual cost savings for using EarthBind-100 versus Lignin would be $9.76 per square meter per year.