How to stabilised soil roads

AggresBind

a cross-linked styrene acrylic water-based polymer

Patent Pending and Proprietary Technology

Environmentally Friendly
Existing road softens and erodes when wet and is prone to potholing resulting in dangerous driving conditions. This type of road is never safe and requires constant maintenance.
Existing surface is ripped to the required depth (100mm, 150mm, 250mm depending on ton load required) with care being taken not to dig too deep as this could result in an uneven layer strength after stabilising.

An alternative option is to use a meri-crusher that breaks up soil and rocks up to a depth of 300mm in a single pass.
Excellent and readily available, an Offset Disc Harrow used to break down the soil to produce a well grade mix.
The strength of an Aggrebind stabilised layer is dependant on the following:

- The bearing capacity of the sub-base below the layer to be stabilised. If necessary this should be re-compacted before stabilising the base layer.
- 50mm stabilised layers are for pathways only.
- 150mm stabilised layers are for vehicles up to 40 tonnes.
- 250mm stabilised layers are for all other applications and ideally, subject to the compaction equipment available, should be installed as 2x125mm layers. Aggrebind has a bond-back capability so there will be no strength loss between the two treated layers.
- As a general rule there should +-35% of fines and no stone larger than 20% of the layer depth being stabilised.
- Care should be taken to grade the surface of the road for drainage.
- If required any wearing surface can be applied to an Aggrebind treated base layer.
- Any damage to an Aggrebind treated layer can be easily repaired with hand tools.
- The polymers bond-back capability ensures that there is no strength loss.
4000 litre constant pressure bowser dispersing water/polymer solution. Speed of vehicle regulated to disperse mixture evenly across the width of the road. It is important to calculate the area that each bowser load will treat as this will enable the mixing process to be implemented immediately. It also ensures that the surface will not dry out too fast between the mixing and compaction phases.
Offset Disc Harrow or alternatively Power Harrow, should be used immediately to mix the polymer/water thoroughly into the treated soil. A road grader can also be used for this process.
A road grader is used prior to, and during, the compaction process to create the correct road profile. This is vital to prevent rainwater from constantly lying on the finished road surface as this is the main cause of potholes.
Vibration Compaction single drum smooth roller with rubber tractor tires which has to be driven backwards to remove tire indentations on the finished road surface.

A smooth drum dual tandem vibro roller is preferred.
Surface sealed with a single pass of the bowser. It is important that vehicles do not drive on the surface during the sealing process. The surface is rolled again, with NO vibration, when the surface is sufficiently dry that it does not stick to the roller drum.
Completed Sealed & Water Resistant Road

The Completed Sealed Road, natural in colour, stable and water resistant. New road open and carrying traffic 1 - 2 hours after being sealed.

Lleida, Spain
San Francisco, Ayacucho, Peru

The Completed Sealed Road, black in colour, stable and water resistant. New road open and carrying traffic 1 - 2 hours after being sealed.