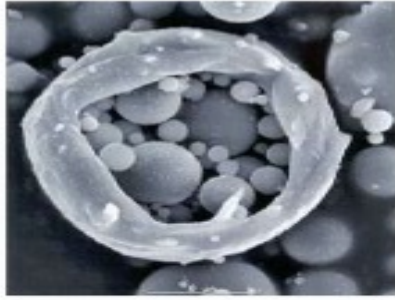
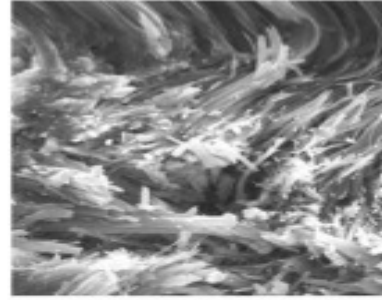


The Mineralogical effect of adding RoadCem to the process of cement stabilisation of soil



Cement Stabilisation without RoadCem glues soil particles together the result: **BRITTLE**



Adding RoadCem increases crystallisation forming interlocking strings which wrap around soil particles the result: **FLEXIBLE**

The above photos of the morphology of Nano modified soil concrete were taken using AFM (atomic force microscopy) to show the elements that are formed which contribute to the special characteristics that RoadCem brings to soil stabilisation.

High tensile strength and breaking strain without any thermal cracking

When RoadCem is added to cement, it rapidly increases the reactivity of the cement creating a high energetic value, which during hydration results in extensive increase in crystallisation, filling voids and forming a dense, flexural mass.

RoadCem a mixture of noble-metals (e.g. Aluminium), non-noble metals (e.g. Magnesium) and synthetic Zeolites which combine to give a synergetic reaction to the formation of stable crystalline structures. Bonding together homogeneously and distributed throughout the stabilisation. With cement alone a more open structure can be seen in the photo above.

Unevenly distributed crystalline agglomerations, can lead to brittleness. The homogeneous distribution created by RoadCem is stable and strong. With maximum reaction of the of the cement, a crack and leach free monolith is formed. Any available water is bound in and to these crystalline structures. With no free water all potential weak spots are eliminated and the mass becomes impermeable and frost safe.

The resulting mechanical properties of RoadCem soil concrete stabilisation are therefore far more predictable and measurable. Using multi-linear elastic modelling, our design engineers Rodgers Leask can calculate final strength, longevity and loading capacities with confidence.

This allows for thinner RoadCem stabilised layers saving cost, materials and construction time.

RoadCem Zeolite soil concrete stabilisation has a high bearing and impact strength providing a safe working platform for heavy plant.