

# **IMPROVED PERFORMANCE OF SOILS STABILIZED WITH FBC ASH**

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## **ABSTRACT**

Improved performance of soils stabilized with FBC (Fluid Bed Combustion) ash is a proposed strategy for the forestry industry in Chile where local soil are improved using FBC ash and after a predetermined period, re-construction is follow using foam asphalt improving physical and mechanical properties. The paper presents the results of a second phase of a project which study the applications of FBC ash in soil stabilization. In broad terms it has been identified two types of soils that react differently with the addition of FBC ash. The first type of soils corresponds to those that their physical and mechanical properties are improve to a certain extent and may be used as improve base course or an improve gravel road. The second type of soils are those that their physical and mechanical properties are improve to a certain extent but above an “x” percentage of FBC ash addition, they may swell and produce a contrary effect. The research work looks at different procedures to further improve performance of both types of soils. For the first type of soils (non expansive) the procedure re-uses a stabilized soil with FBC ash and is stabilized again by using foam asphalt. The second type of soils (expansive) the upper limit of FBC ash content (for swell) is determined and the same performance improves procedure is applied. The results and conclusion of the research are based on laboratory and field experience.

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