



# Treatments Technology and Mechanisms of East Africa Black Cotton Soil

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## ABSTRACT

*The East Africa black cotton soil (BCS) cannot be used as embankment filling directly, because it is high in clay content, liquid limit, plasticity index, and low in CBR strength (CBR < 3%). Therefore, this paper uses tests and analysis on the indicators, such as basic physical properties, swelling characteristics and mechanical properties of the East Africa BCS modified by the lime and volcanic ash, in order to explore the influence of the different blending amounts of lime, volcanic ash on expansion and contraction deformation strength and the law of change. So that the economical and feasible chemical treatments of the East Africa BCS which meet the requirements of specifications can be found. In addition, the chemical treatment mechanism of the East Africa BCS will be analyzed.*

## Keywords:

*Road engineering, Black cotton soil, Base, Lime, Volcanic ash.*