

Lime Reactivity of Heavy Trinidad Clays

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Abstract: *Studies for agricultural purposes and more recently for engineering purposes show that large areas of Central Trinidad consist of heavy clays. These materials are characterised by very low strengths when wet, very poor workability, high swelling and generally a high degree of instability in the presence of water which is aggravated by the local rainy season. In addition, these materials present the greatest difficulty in treatment by existing methods of stabilisation. In recent years, lime has been used extensively to modify and improve the engineering character of fine-gained soils, particularly heavy clays. Generally the plasticity, workability and strength properties are improved by the addition of lime to the soil. No literature or work appears to be available on the reaction of lime with locally occurring clay soils particularly the heavy clays. As a result, a study was initiated to determine the lime reactivity of Trinidad Clays since good reactivity in the laboratory will indicate whether lime may be used advantageously and economically as a soil stabilisation measure in the field. This paper presents the initial section of the general study of the lime reactivity of clay soils in Trinidad and Tobago.*

Keywords: *Lime reactivity, stabilisation, clay soils, Trinidad and Tobago*