

INFLUENCE OF CHEMICAL ADMIXTURE ON MARINE SOIL

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Abstract—When soil loses the moisture content below the ground, it creates the volume reduction in the soil and causes shrinkage cracks on the soil surface. This condition creates moderate to several problematic damages to the Geotechnical Engineering works. Shrinkage of the soil is reduced in many ways, but the chemical admixture technique is a world-wide technique to reduce the shrinkage of the soil. In this research paper, Potassium Carbonate (K_2CO_3) is used as a chemical admixture in various proportions such as 0%, 1%, 1.5% and 2% in marine soil to reduce the shrinkage characteristics of the soil. The use of Potassium Carbonate (K_2CO_3) in marine soil and the observed behavior of the chemical in the soil. Results are concluded that the shrinkage limit is reduced by 32.27% in addition of the optimum percentage of chemical.

Keywords— Atterberg's limit, Shrinkage limit, Marine soil, Potassium carbonate, Cation exchange capacity:

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