SOIL - PALM SHELL STABILIZATION

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SYNOPSIS

This study utilized palm shell as a stabilizer for two different type of soils mixed with different percentage of palm shell, that is, 1%, 2% and 5% by weight of oven dried soil forming the MS1, MS2 and MS5 soil composites. This laboratory investigation on soil-palm shell composites with Sandy Clay (SC) and inorganic clay (CL) soils will be examinaed in terms of strength and compaction behaviour.

These tests examine several aspects of the compaction characteristics, relationship between strength and permeability versus compaction for both type of soils and their mixtures. Comparative study with earlier test results by Salmah & Nor Fadzillah on two different soil types silty clay (ML) and silty sand (SM) will also be presented. From the result of this study the SC-MS2 composite (unsoaked) test sample dry of optimum give a higher CBR value when compared with other mixtures (e.g. MS1, and MS5). Further, the test results for SC-MS5 mixture gives a lower value of coefficient of permeability when compared to SC-MS1, SC-MS2. This may be due to the increase obstruction on the pattern of flow with the increase in the percentage of palm shell.

Several further testings will be listed in order to assess completely the suitability of palm shell as a stabilizer.

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