

Examining Black Cotton Soil with a Variety of Amendments

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Abstract: *The black cotton soil is a form of expansive soil that swells up and starts to expand quickly when it comes into contact with water. Because of this quality, the strength of the soil, along with its many other properties, is extremely lacking. The expansive sort of soil exhibits unpredictability in its behavior when stabilized with completely diverse kinds of quiet substances. In addition to this, soil stabilization is a method of treating soil in order to need care for the soil, alter its performance, or improve its performance. During the course of this research, both marble dust, which is a by-product of the marble industry, and coconut shell powder will be tested for their viability as helpful additives to expanding soil. In this part of the investigation, we are going to determine the advance at intervals of the strength qualities of expanding soil in its natural state as well as once it has been mixed with varying proportions of marble dirt and coconut shell powder. The sand used in the experimental programme is ground up marble that was obtained through the cutting of marble. The damage to the environment that is created by marble mining is significantly less severe than the damage that is caused by the garbage produced by marble processing factories. According to the findings of a significant number of researchers, marble can contain as much as fifty five percent lime (CaO) by weight. In order to perform the unconfined compression test, black cotton soil specimens are created by incorporating varying proportions of marble mud and coconut shell powder into the black cotton soil, and then the specimens are allowed to cure for three, seven, and fourteen days respectively. The remarkable variation that was identified between the qualities of the soil's strength were discovered.*

Keywords: Black cotton soil

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