

SOIL STABILIZATION WITH FLYASH AND SORGHUMWASTE ASH OPTIMIZATION

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ABSTRACT

Adding admixtures at optimum levels to clayey soil using fly ash and Sorghum Waste ash is an effective strategy to prevent the premature failure of structures. The objective of this study is to stabilize a clayey soil with the fly ash and the optimum amount of Sorghum Waste ash. The results are shown below: At 25 % fly ash and optimum SWA of 12%, for a 28 day curing period, the optimum UCS is 994 kPa. At 25 % fly ash and optimum SWA of 12%, the optimum CBR is 6.7 %. At 15 % fly ash, 7% strain the optimum compressive strength is 398 kPa. At 15 % fly ash and optimum SWA of 12%, for a 28 day curing period, the optimum UCS is 604 kPa. At 30 % fly ash, 8% strain the optimum compressive strength is 497 kPa. At 0 % fly ash and optimum SWA of 12%, for a 28 day curing period, the optimum UCS is 501 kPa.

KEYWORDS: Construction Materials, Clays, Sorghum Waste Ash, Flyash