

An Investigation on Effect of Oil Palm Shell Ash on Flexural Strength and Compressive Strength of Cement Mortar

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ABSTRACT

One of waste agriculture materials is oil palm shell ash. It has been producing in high quantity in palm oil mill, and for storage of that an investment requires. In this paper, an attempt has been made to analysis effect of oil palm shell ash on compressive and flexural strength of cement mortar. The compressive strength and flexural strength of cement mortar has been measured. To improve accuracy of work 50% cement and 50% fine sand has been proposed in cement mortar mix design. The results have been indicated that the effect of OPS ash on flexural and compressive strength of cement mortar is not same. The deflection, load sustainability and time to failure for compressive strength have independent fluctuation of flexural strength. The positive and negative effect of OPS ash on mechanical properties of cement mortar has been observed. The morphology of crack failure has not been investigated. The work can be continued with many waste agriculture materials.

Keywords: waste agriculture, deflection, load sustainability, time to failure.

KEYWORDS: Deflection; Load Sustainability; Time to Failure; Waste Agriculture

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