ABSTRACT

The Influence of Fly Ash Additive For Strength Brick In Post Combustion by Using Rice Husk Ash Additive.

by :

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Brick is one of the material constructions which often used to build a construction, such as buildings, stores, housing, etc. The bricks are made from a mixture of soil and water. In this research the process of making bricks will be tried by mixing soil with bricks additives is fly ash and rice husk ash to determine the advantages from additive materials as well as comparing the compressive strength of original brick to brick waste that has been mixed with additive materials such as fly ash and rice husk ash to achieve strong and durable bricks of SNI specification.

The cohesive soils of Yoso Mulyo resident, Metro is used as soil samples. Additive materials used are fly ash from PLTU Tarahan and rice husk ash from Yoso Mulyo Village, Metro. Variations in the levels of the mixture used is Mix Levels I (5%), Mix levels II (10%), Mix Levels III (15%) and Mix Levels IV (20%), with a ratio of additive materials between fly ash and rice husk ash is 1: 1. Therefore brick testing that has been done through a process of mixing, curing and burning, specific gravity tests performed include compressive strength, and water absorption test. Based on the results of physical testing original soil, Unified system classifies as fine-grained soil and it is included in the ML group.

The results showed that burning brick by using fly ash and rice husk ash as an additive ingredient in a mixture of brick-making material effect on the compressive strength, so that the strength is obtained in this research is quite good as well as National Standardization Agency of Indonesia (BSNI). The high compressive strength of bricks using fly ash additive materials and rice husk ash due to reduced air volume and pore cavities on soil particles.

Keywords : bricks , additive fly ash and rice husk ash, compressive strength