ABSTRACT

BRICK'S POWER STANDARD DIMENSION STUDY USING FLY ASH ADDITIVE (FLY ASH) BASED ON SNI

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Brick is one of the construction materials are often used to build a construction, such as buildings, shopping malls, as well as housing and others. The bricks are made from a mixture of soil and water. In this study, the brick-making process will try to mix the soil with additives (additive) which is fly ash brick (fly ash) to determine how much benefit the waste of the additive materials and compare the compressive strength of ordinary brick by brick that has been mixed with additive materials such as fly ash to achieve SNI specification bricks that's strong and durable.

Soil sample used is a type of clay that comes from the village Yoso Mulyo, Metro. Additive materials used are fly ash from power plants Tarahan. The variation of dimension used are 4cm x 4cm x 4cm, 5cm x 5cm x 5cm, 6cm x 6cm x 6cm, 7cm x 7cm x 7cm. On dimension of 7 cm x 7 cmx 7 cm the average compressive strength value is 58,46 cm^2 this is the best compressive strength.Thus testing the bricks that have been made through the process of mixing, curing and burning, do include specific gravity test compressive strength and water absorption test. Based on the results of physical testing of the original soil, soil samples Unified system classifies as a fine-grained soil and belongs to the group ML.

The results showed that the brick-making post-combustion by using the addition of fly ash as an additive in a mixture of brick-making material effect on the addition of compressive strength values, so that the power on brick obtained in this study is quite good and meet established standards of the National Standardization Agency for Indonesia (BSNI). The high value of the compressive strength of the brick using fly ash additive materials due to reduced air volume and pore cavities in the soil particles are filled.

Keywords: bricks, fly ash additive, compressive strength