ABSTRACT

THE STUDY EFFECT OF ADDING ZEOLITE ADDITIVE MATERIA;S OF COMPRESSIVE STRENGTH OF BRICK POST COMBUSTION

By

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A brick is a synthetic stone made of clay with or without additive materials which through some processes. The process includes drained in the sun and then burned at high temperatures in order to make the brick hardened and not destroyed when immersed in water. The needs of bricks will increase, so that many people build home industries to produce bricks. To keep the quality, the made of bricks only use a specific soil. However, in this research the reseacher used the worst material of soil with additive materials named the ash of bagasse in purpose to utilize the waste and to increase the strength of the bricks so that it can produce cheap bricks with good quality that can be an alternative for bricks industries.

Soil samples were tested in this study is derived from the silt soil region Nyunyai road, Kec.Rajabasa. Variations in the levels of the mixture used is 6%, 8%, 10%, and 12% and drying for 7 days, with burning treatment and without burning treatment. Based on the results of physical examination native land, USCS classify soil samples as fine-grained soil and belong to the CL group.

The results showed that the brick-making post-combustion using zeolite mixture meets the Indonesian National Standard (SNI) bricks for building materials. In general, the addition of zeolite material in the soil reduces the value of the density of the soil mixture. For the compressive strength of bricks without combustion and combustion processes are best shown in the addition of a mixture of 10%-12%.

Keywords: Bricks, silt soil, zeolite, compressive strength