

ABSTRACT

STRENGTH RESEARCH OF PAVING BLOCK AFTER BURNING PROCESS USING CLAY MATERIAL WITH RICE HUSK ASH AND CEMENT FOR ADDITIONAL ROAD

By

EMMI DESNIATI

In a row of period progress directly proportional with public means and infrastructure developmmment that one of it is land transportation especially pavement. One of means transportation wich already familiar is paving block Paving blocks made of a mixture of portland cement or adhesive material like hydrolysis, water, and aggregates with or without other ingredients. However, the use of the material is made into high production rates. Therefore, in this study the process of manufacture of paving blocks will be tested using alternative materials such as soil mixtures with rice husk ash additive materials derived from residual combustion rice straw waste combined with portland cemen.

Soil samples were tested in this study are derived from clay Karang Anyar, South Lampung area,. Variations in content the mixture used was 6%, 8%, and 10%, ratio between rice husk ash and cement is 1 : 1 to 7 days curing time and with burning treatment and without burning paving block samples. Based on the results of physical testing original soil, USCS soil samples classified as fine-grained soil and included in the CL group.

The results showed that the manufacture of paving blocks using the soil material with additive materials such as rice husk ash and cement did not fulfill SNI paving block. However, in general the addition of the additive materials can increase the physical and mechanical properties of the soil. It is proved by the increasing value of the optimum moisture content and density of the mixture. For the compressive strength of paving blocks without and with burning process is best shown in the addition of a mixture of 10% content.

Keywords: *Paving blocks, clay soil, compressive strength*