ABSTRAK

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Pada saat ini pembuatan produk dengan menggunakan limbah telah banyak dikembangkan. Salah satunya adalah *cone block.* Studi kali akan menambahkan antara abu sekam padi dan serbuk kaca hijau yang bertujuan untuk mengetahui pengaruh terhadap mutu *cone block*. Penambahan abu sekam padi dan serbuk kaca hijau bertujuan untuk mengetahui kuat tekan, kuat lentur dan daya serap air terhadap *cone block*. Kandungan silika tersebut berupa zat *pozzolan*, zat berupa kandungan menyerupai semen dan dapat menggantikan semen.

Penelitian kali ini memodifikasi *cone block* dengan campuran abu sekam padi dan serbuk kaca hijau dari persentase 8%, 10% dan 15%. Penambahan persentase tersebut berdasarkan penelitian sebelumnya yang menyebutkan penambahan silika lebih dari 10% akan berpengaruh terhadap struktur *cone block.* Pengujian yang dilakukan pada *cone block,* yaitu uji kuat tekan, kuat lentur dan daya serap air.

Hasil penelitian *cone block* uji kuat tekan, *cone block* campuran 8%, 10% dan 15% kuat tekan mengalami penurunan disebabkan proses pengikatan senyawa yang melambat akibat pengurangan unsur semen. Uji kuat lentur *cone block* dengan kandungan 8% dan 10% meningkatkan kuat lentur akibat kandungan semen dengan bahan tambahan seimbang. Untuk pengaruh daya serap air, persentase *cone block* 15% penyerapan airnya tinggi dan berbanding lurus dengan kuat tekan *cone block.* Semakin tinggi penyerapan makin kuat tekan *cone block* berkurang.

Kata kunci : *cone block,* abu sekam padi, serbuk kaca hijau, *absorpsi*

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ABSTRACT

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At present, the manufacture of products using waste has been widely developed. One of them is a cone block. The study will add between rice husk ash and green glass powder which aims to determine the effect on cone block quality. The addition of rice husk ash and green glass powder aims to determine the compressive strength, flexural strength and water absorption capacity of the cone block. The silica content is in the form of pozzolanic substances, substances in the form of content resembling cement and can replace cement.

This study modified the cone block with a mixture of rice husk ash and green glass powder from the percentage of 8%, 10% and 15%. This percentage addition is based on previous research which states that the addition of silica more than 10% will affect the structure of the cone block. Tests carried out on cone block, namely compressive strength, flexural strength and water absorption.

The results of cone block test of compressive strength, cone block mixture of 8%, 10% and 15% compressive strength decreased due to the binding process of compounds which slowed due to reduction in the element of cement. Cone block flexural strength test with a content of 8% and 10% increases the flexural strength due to cement content with additional balanced ingredients. For the influence of water absorption, the percentage of cone block is 15% high water absorption and is directly proportional to the compressive strength of the cone block. The higher the absorption the compressive strength of the cone block decreases.

Keywords: cone block, rice husk ash, green glass powder, absorption

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