

ABSTRACT

PREPARATION AND CHARACTERIZATION OF LIGHTWEIGHT CONCRETE BLOCKS WITH A MIXTURE OF RICE HUSK AS FILLER MATERIAL OF BUILDING CONSTRUCTION MUFFLED SOUND

By

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Abstract. This study aimed to determine the effect of rice husk against compressive strength and absorption of sound damping in the rice husk brick. The method used is the method of solids. Sample of 21 brick-shaped cylinder with a diameter of 5 cm and 4 cm high. Cement variation of 10%, 20% and 30% by volume percentage. Filler material such as sand, and chaff 80-10% 10-80% with a total of 100%. Characterization was done by testing the physical density, porosity and mechanical tests that test compressive strength, damping test and thermal conductivity. Characterization test results density is 1.13-1.77 gr/cm³. Density is greatest S₃₀SP₁₀ sample is 1.77 gr/cm³. Porosity values between 6.39-46.55%. Compressive strength test between 0.43-12.84 MPa. Compressive strength is greatest S₃₀SP₁₀ sample because the cement content of the concrete is for curing the mild. Highest sound damping test on samples with absorption at 0.42 S₃₀SP₆₀. Further thermal conductivity test performed on a sample S₁₀SP₈₀, S₂₀SP₇₀, S₃₀SP₆₀ with the that is 0.84, 1.01, 1.04 W/m^{°K}.

Keywords. *rice husk, solid method, the percentage of volume, characterization.*