ABSTRACT

TEST PHYSICAL EPOXY RESIN POLYMER COMPOSITES BASED RICE HUSK ASH WITH RIVER SAND AGREGAT

by

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Is have been made polymer resin composites with varying the weight of rice husk ash, river sand and epoxy resin is dried naturally until 7 days. Variations in the composition of rice husk ash are: 0, 15, 25, 50% of the weight variation of river sand and epoxy resin additions are: 10, 15, 20% of the weight of river sand and rice husk ash. The optimum of composit quality obtainnet at composition of 50% from rice husk ash with 20% of epoxy resin. The test results obtained porosity values between 0,019 to 0,670%, the more the addition of rice husk ash then the porosity values are increase but if the amount of resin is added the porosity decreases. Density values of 1,723 to 3,292 g/cm³, the effect of rice husk ash and epoxy resin is inversely proportional to the porosity. Compressive strength values between 5,135 to 11,674 MPa, the more the addition of rice husk ash then the compressive strength have are decreases but if the amount of resin added then the increase. Ability coefficient to muffle the sound source of 0,0375 to 0,1288, the more the addition of rice husk ash than up muffled coefficient sound tends to increase, but if the amount of resin added then decreases. Thermal conductivity of 0,7639 to 1,3255 W / M°k, effect of rice husk ash on the thermal conductivity are test tends to decrease.

Keywords: physical test, epoxy resin, rice husk ash.