

PROJECT REPORT

“EXPERIMENTAL INVESTIGATION ON INFLUENCE OF DREDGED SAND ON RICE HUSK ASH CONCRETE”

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ABSTRACT

Due to the pozzolanic reactivity, rice husk ash (RHA) is used as supplementary cementing material in mortar and concrete and has demonstrated significant influence in improving the mechanical and durability properties of mortar and concrete. It has economical and technical advantages to use in concrete. In this paper, a critical review on the influences of RHA on the strength of mortar and concrete are mainly presented. In addition, properties and pozzolanic activity of RHA, advantages and disadvantages of supplementary use of RHA in mortar/concrete are mentioned here. Based on the available documented literature, it can be concluded that RHA could be used as supplementary cementing material up to a certain level of replacement without sacrificing strength of concrete. Proper consumption of these RHA contributes in solving environmental pollution and production of cost-effective concrete; it can also play a vital role for the production of sustainable concrete.

India is a major rice producing country, and the husk generated during milling is mostly used as a fuel in the boilers for processing paddy, producing energy through direct combustion and / or by gasification. About 20 million tones of Rice Husk Ash (RHA) is produced annually. This RHA is a great environment threat causing damage to the land and the surrounding area in which it is dumped. Lots of ways are being thought of for disposing them by making commercial use of this RHA. RHA can be used as a replacement for concrete (15 to 25%). This paper evaluates how different contents of Rice Husk Ash added to concrete may influence its physical and mechanical properties. Sample Cubes were tested with different percentage of RHA and different w/c ratio, replacing in mass the cement. Properties like Compressive strength, Water absorption and Slump retention were evaluated.