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## EFFECTS OF RICE HUSK ASH ON SORPTIVITY CHARACTERISTICS OF CONCRETE

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### **Abstract:**

This presented study investigates the sorptivity durability indicator of concrete blended with rice husk ash (RHA) to ascertain durability characteristics of concrete structures. Concrete mixes of 1:2: 4 (cement: fine aggregate: coarse aggregate) and water cement ratio of 0.55 were prepared. RHA was used to replace cement up to fifteen percent in increments of five percent by weight. Concrete cubes 100 mm (4 in.) in size were cast and tested for compressive strength and sorptivity at ages of 7, 14 and 28 days. The results indicated that the compressive strength and sorptivity of the concrete were increased at 28 days especially with ten percent RHA content. A linear relationship between compressive strength and sorptivity was found which indicates that the compressive strength of RHA blended cement concrete can be predicted using its sorptivity characteristics. It is concluded that replacement of cement with RHA up to ten percent provides a potential of improving the durability performance of concrete.

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