

Studies on Partial Replacement of Cement by Rice Husk Ash under Sodium Phosphate Medium

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Abstract : Rice Husk Ash (RHA) is a green product contains carbon and also loaded with silica. For the development of durability and strength of any concrete, curing phenomenon shall be very important. In this communication, we reported the exposure of partial replacement of cement with RHA at different percentages of 0%, 5%, 7.5%, 10%, 12.5% and 15% by weight under sodium phosphate curing atmosphere. The mix is designed for M40 grade concrete with the proportions of 1:2.2:3.72. The tests conducted on concrete was a compressive strength, and the specimens were cured in normal water & exposed to the chemical solution for 7, 28 & 56 days. For chemical curing 0.5% & 1% concentrated sodium phosphates were used and were compared with normal concrete strength results. The strength of specimens of 1% sodium phosphate exposure showed that the compressive strength decreased with increase in RHA percentages.

Keywords : rice husk ash, compressive strength, sodium phosphate, curing

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