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Mix Design and Strength of Coral Shell Powder Concrete

The large scale production and use of Portland cement and acquisition of aggregates from dredging and quarrying has a dramatic impact on the environment on its degradation. Waste like coral shell is considered to be a material which could be used as binder and as partial replacement of cement. Coral Shell Powder (CSP) exhibits pozzolanic properties in mortar and concrete. The CSP mixture provides 10 per cent replacement of cement and as a result a higher compressive strength of 40.54 N/mm2 than the nominal strength 30.00 N/mm2 of the concrete is achieved. The paper presents the mix design of CSP concrete and details about the experimental investigation conducted on this concrete involving its testing for the evaluation of mechanical strength.

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