International Journal of Civil, Structural, Environmental and Infrastructure Engineering Research and Development (IJCSEIERD)
ISSN (P): 2249–6866; ISSN (E): 2249–7978
Vol. 11, Issue 1, Jun 2021, 85-90

TRANS STELLAR
•Journal Publications •Research Consultancy

STUDY ON THE MECHANICAL PROPERTIES OF CONCRETE USING CRUMBLED RUBBER AND COASTAL DEBRIS

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ABSTRACT

There are many threats that affect the environment, there are wastes that are generated in the production process or discarded after a specific material ends its life time or the intend use. The waste products are divided as solid waste, liquid waste and gaseous wastes. There are many ways of disposal of liquid and gaseous waste materials. Some solid waste material such as plastic bottles, papers, steel can be recycled without affecting the environment. Seashells waste is a growing economic and environmental hazard. Recycling of coastal debris helps in reducing the total environmental impact in building sector. To overcome this problem, crumbled rubber is made as Partial replacement in Concrete mix. The present experimental investigation is to study mechanical properties of concrete using Crumbled rubber and coastal debris. Concrete specimens were tested for 28 days. Crumbled rubber was added at 5%, 10%, 15% by weight of concrete and coastal debris also were added at 10%, 15% and 20% by weight of concrete. Based on the test results, concrete containing 5 % crumbled rubber 10% coastal debris which has better load carrying capacity compared to other replaced concrete mix and retains homogeneity and avoid breakage of specimen.

KEYWORDS: Coastal debris, Partial replacement, Crumbled rubber & Mechanical properties

Received: Feb 28, 2021; **Accepted:**Mar 18, 2021; **Published:** Apr 16, 2021; **Paper Id.:** IJCSEIERDJUN20219

Original Article