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Experimental Study on Partial Replacement of Aggregate by using Plastic Waste

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Abstract: *Recycling of plastic waste by using them as course aggregate in concrete without evaluate the properties of concrete. Plastic due to its properties such as durability, light weight and its ability to be moulded into any desired shape has enhanced its popularity. However, its excessive production has become a serious threat to the environment and human health.. Then the main issue are disposal of plastic waste. Plastic waste are degrades land fertility, deteriorates aesthetic value of a place and human health . Therefore, this paper discusses on method of reducing plastic waste as well as safeguarding natural aggregates by incorporating it into cement concrete . As 100% replacement of natural coarse aggregate is not feasible, then optimum percentage replacement of natural coarse aggregate with plastic coarse aggregate which can give the same or more strength compared to nominal concrete. This experiment revealed that partial replacement of natural aggregate with plastic aggregate achieves the maximum strength of concrete in 28 days compare to other percentage of plastic replacement at various percentage were examined and optimum percentage is investigated.*

Keywords: Plastic Waste, Non-Biodegrable Material, Coarse Aggregate, compressive Test.

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