

**Fabrication and Characterization of the Eco-Brick using Plastic Waste**

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***Abstract***

Plastics are one the useful daily improvements and hazardous substances. At the time of necessity, plastic is found to be very useful, but after its use, it is only removed and creating all kinds of hazards. Plastic cannot be biodegradable, so it will continue to be dangerous for more than a century. The idea of this project is to find the use of this waste in something beautiful. Plastic waste mixing with cement, plastic wastes, and sand to make new types of bricks have thought. Plastic scrap used is a selection of waste bottles cans, and so on. So, as an experiment, plastic was cut into small pieces. To mold, cement, plastic waste, and sand were added in appropriate proportions. After thorough mixing, the mixture is poured into a rectangular mold with standard brick dimensions. Local brick test methods have been conducted such as compressive strength and water absorption. The eco-brick has undergone a test of compression test and water absorption test. The results showed that there was a difference between eco-brick and local cement bricks.

*Keywords:* Plastic waste; Biodegradable; Brick; Compressive strength; Water Absorption.