

USAGE OF RECYCLED TYRE IN CONCRETE

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ABSTRACT

Over recent years significant emphasis has been placed on the use of recycled products in highway and construction materials. Waste materials such as tyre may be used with conventional material as aggregate replacement. In concrete, there are 3 main materials, which are cement, water, and aggregate (fine and coarse aggregate). Now, the rubber from granulated tyre will be replacing the total aggregate in concrete in my project.

An experiment study is being conducted to evaluate the effect of tyre rubber in Portland cement concrete. The objective is to compare the compressive strength between the rubber concrete with the regular concrete. Initially, calculate the tyre content by decrease the total aggregate content example doing the 5% rubber concrete by decrease 5% of the total aggregate. Do 4 different sets of concrete which are 5, 10, 15, and 20% and cast it in 150mm x 150mm x 150mm size. Then cure it in water for 28 days for each sample. After that, use compaction machine to test the compressive strength of the concrete for 7, 14, and 28 days. Then do the comparison.

The result will be show in a table from in the body part. Then you will see the different between the both types of concrete.