Partial Replacement of Crumbed Rubber Tire as Fine Aggregate on Mortar

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Jan Erickzon M. Evangelista
Jayson L. Tan
Fahad R. Aquino

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ABSTRACT

The study entitled, Crumbed Rubber Tire for Fine Aggregate on a Mortar aims to maximize the use of waste material specially the rubber tire. Nowadays, the demand for transportation is increasing, for this reason the number of used rubber tire is also increasing and the disposal of rubber tire is becoming a problem. Used rubber tire can be a threat in the environment especially when it is burned causing air pollution. There are only limited ways to recycle rubber tire, One purpose of this study is to find another effective way to use the rubber tire. The researcher also wants to find an alternative material for fine aggregates that can be used in making mortar. Another is to give knowledge to others about the use of Crumbed Rubber Tire (CRT) as fine aggregates.

In this study, the researchers compare the flexural strength, linear expansion, and acoustics factors of the mortar with different percentage of CRT that substitute to sand as fine aggregates. The data shows that the flexural strength was inversely proportional to the percentage of the CRT. There was no difference in linear expansion between mortars with and without CRT. On sound level it shows that mortar with CRT will absorb the sound.

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