

## عنوان مقاله:

Ductile and Lightweight Cement Composite Contained Of Waste Tire Rubber

## محل انتشار:

دومین کنفرانس بین المللی مقاوم سازی لرزه ای (سال: 1388)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

The growing amount of waste rubber produced from used tires has resulted in an environmental problem. The number of vehicles globally increases every year generating, among other things, by-products of the use of those vehicles, for example, tires. Usually, these tires are discarded without control and deposited in inadequate way in the environment increasing the environmental, pollution and favouring the proliferation of insects that causes tropical diseases. The main objective of this study was to investigate rubber waste in cement matrix, as fine aggregates, to develop ductility and lightweight construction materials. Composites containing different amounts of rubber particles, as partial replacement to cement by volume, five designated rubber contents varying from 10% to 50% by volume were used. The 28-days properties of the cement composite were determined. Analyses included dry unit weight, flexural strengths, compressive strength, Test results indicated that the increase in rubber content decreases the sample unit weight Results have shown that the introduction of rubber particles significantly increases the strain capacity of the materials. However, rubbers into cement paste enhance the toughness of the composite. Although the mechanical strengths were reduced, the composite containing 50% of rubber particles satisfies the basic requirement of lightweight construction materials.

## کلمات کلیدی:

ductile cement composite, light weight cement composite, absorption cement composite

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/844752>

