

Reference Type

Journal Article

Record Number

14

Author

Kakooei, Saeid
Akil, Hazizan Md
Jamshidi, Morteza
Rouhi, Jalal

Year

2012

Title

The effects of polypropylene fibers on the properties of reinforced concrete structures

Journal

Construction and Building Materials

Volume

27

Part/Supplement

Issue

1

Pages

73-77

Start Page

Errata

Epub Date

Date

2012/02/01/

Type of Article

Short Title

Alternate Journal

ISSN

0950-0618

DOI

<https://doi.org/10.1016/j.conbuildmat.2011.08.015>

Original Publication

Reprint Edition

Reviewed Item

Legal Note

PMCID

NIHMSID

Article Number

Accession Number

Call Number

Label**Keywords**

Concrete

Polypropylene fibers

Compressive strength

Electric resistivity

Permeability

Abstract

In this study, the results of polypropylene fibers reinforced concrete properties have been presented. The compressive strength, permeability and electric resistivity of concrete samples were studied. The concrete samples were made with different fibers amounts from 0 to 2kgm⁻³. Also, the samples fabricated with coral aggregate and siliceous aggregate were examined and compared. The samples with added polypropylene fibers of 1.5kgm⁻³ showed better results in comparison with the others. Moreover, coral aggregate concrete showed less electric resistivity and less compressive strength in comparison with samples fabricated of siliceous aggregates. It is concluded that the coral aggregates are not suitable for making concrete or using in concrete structures in the onshore atmosphere.

Notes**Research Notes****URL**

<https://www.sciencedirect.com/science/article/pii/S0950061811004478>

File Attachments**Author Address****Figure****Caption****Access Date****Translated Author****Translated Title****Name of Database****Database Provider****Language**