

عنوان مقاله:

The effect of different lengths of polyester fibers on the mechanical properties of concrete

محل انتشار:

سومین کنفرانس بین المللی معماری، عمران، شهرسازی، محیط زیست و افق های هنر اسلامی در بیانیه گام دوم انقلاب (سال: 1402)

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نویسندگان:

Hosein Pajouhan, - Master's Degree in Civil Engineering - Structure

Meysam Memar - Department of Civil Engineering, Faculty of Engineering, Zand Institute of Higher Education, Shiraz, Iran

,Davood Ghaedian - Department of Civil Engineering, Eghlid branch, Islamic Azad University, Fars, Iran

خلاصه مقاله:

Today, the use of plastic products has increased, and for this reason, the disposal of this plastic waste has become a big problem and has caused many environmental problems. A large part of this plastic waste consists of plastic bottles, which are made of polyethylene terephthalate (PET). In this research, three different lengths of ۱, ۲, and ۳ cm polyester fibers (PF) obtained from recycling plastic or PET bottles were used with a fixed percentage of ۱% by weight of cement as an additive, with a fixed ratio of water to cement in concrete and with ۴ The mixing plan of ۱۲ different concrete samples was made. The compressive strength of concrete was investigated. The lengths of ۱, ۲, and ۳ cm of polyester fibers have increased the compressive strength of concrete by ۴%, ۰.۱%, and ۱۵%, respectively

کلمات کلیدی:

Polyester fibers, Polyethylene terephthalate (PET), Compressive Strength of concrete, environmental problems

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