

عنوان مقاله:

Investigating the durability of high-strength concrete reinforced with hooked steel fibers

محل انتشار:

هفتمین کنفرانس بین المللی مدیریت، بهینه سازی و توسعه زیرساخت های انرژی (سال: 1402)

تعداد صفحات اصل مقاله: 8

نویسندگان:

M. Raze Langroodi - *M.Sc. Student, Civil & Surveying Engineering Department, Faculty of Engineering, North Tehran Branch, Islamic Azad University*

A. Yaghoubifar - *Assistant Professor of Structural Engineering, Civil & Surveying Engineering Department, Faculty of Engineering, North Tehran Branch, Islamic Azad University*

خلاصه مقاله:

High-strength concrete displays markedly different engineering characteristics than conventional concrete, making it a preferred choice for a variety of uses like skyscrapers, long-range bridges, and prefabricated elements. A prevalent method to improve flexibility without losing strength is to reinforce high-strength concrete with fibers. Hooked steel fibers were employed in this study at substitution percentages of ۱, ۱.۵, ۲, and ۲.۵ of the total volume of concrete, resulting in five separate blend configurations. The results showed that using up to ۲۲ steel fibers by volume increased the compressive strength, but it dropped at ۲.۳۲. Additionally, the steel fibers adversely affected the durability features of the blends.

کلمات کلیدی:

UHPC-Steel fibers-Hooked steel fibers-Durability-Mechanical behaviour

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1881652>

