

عنوان مقاله:

Comparisons of Compressive Strength and Crack Pattern for Polymer and Macrosynthetic Fibers Concrete

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نویسندگان:

Hamid Eskandari-Naddaf - Associate Professor of Civil Engineering, Hakim Sabzevari University

Milad Aram-Partan - M. Sc. Student of Structure, Hakim Sabzevari University

خلاصه مقاله:

Concrete is widely used in construction. Plasticity and energy absorption capacity are two main specifications of structures resistant against earthquake. On the other hand, plain concrete has low tensile strength, low energy absorption and trivial resistance to cracks. In this research, samples reinforced with polymer and macrosynthetic fibers in 150*150 and 500*100*100 mm sizes were prepared and tested after being processed. The results show decrease in compressive strength of fiber-reinforced samples. On the other hand, the use of fibers reduces the distance, width and depth of cracks in samples under loading and bending, which is indicative of increase in concrete flexibility.

کلمات کلیدی:

polymer fiber; macrosynthetic fiber; compressive strength; crack; bending

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