

عنوان مقاله:

Experimental Investigation of Flexural Behavior of One-Way Two-Layer Steel and Polypropylene Fiber Reinforced Concrete Slab

محل انتشار:

نهمین کنگره بین الملی مهندسی عمران (سال: 1391)

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خلاصه مقاله:

Concrete structures may be subjected to different kinds of static loads that can affect their structural responses such as deflection, loading capacity and, etc. In these conditions, using of various fibers such as polypropylene and steel fibers in the tensile zone can improve their structural behaviors. Hence dividing of slabs into two parts and using of fibers in tensile part of the slab were investigated. Several experiment tests with many concrete slab specimens made with fibers have been conducted to investigate two-layer concrete slabs, so some of those done experimental oneway two-layer slabs will be presented in this paper. Some diagrams such as P-Δ, energy absorption and, etc. for each slab were studied and analyzed. The results showed that the steel and polypropylene fibers not only increase the strength noticeably, but also they have considerable effect on energy absorption of concrete slabs made with two different layers reinforced with fibers

کلمات کلیدی:One-way slab, two layer concrete, steel fiber, polypropylene fiber

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