

عنوان مقاله:

RELATION BETWEEN BOHME SURFACE ABRASION AND LOS-ANGELES CRUSHING ABRASION OF CONCRETE MADE WITH FLY ASH AND FIBERS

محل انتشار:

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تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

In this experimental study, relation between Bohme surface abrasion and Los-Angeles crushing abrasion of concrete was studied. The concrete tested were made with and without fly ash, steel fiber and polypropylene fiber. A total of 28 concrete mixtures were prepared. Water-binder ratio was kept constant at 0.35 for all fresh concrete mixtures. Bohme and Los Angeles abrasion of the concrete mixtures were then measured, compared and presented at 28 days. The results of the laboratory work showed that replacement of fly ash with cement reduced abrasion resistance of concrete. Although inclusion of the steel fiber improved the abrasion resistance of concrete, inclusion of polypropylene did not improved abrasion resistance of concrete made with or without fly ash. These were valid for both abrasion testing methods. The comparison between Los-Angeles crushing abrasion values and Bohme surface abrasion values showed that a linear strong relation existed between two methods. Therefore, it was concluded Los-Angeles abrasion, which is easier to perform than that of Bohme abrasion method; could be used in the abrasion measurement of concrete

کلمات کلیدی:

Concrete, Bohme Abrasion, Los Angeles Abrasion

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