

عنوان مقاله:

OIL PALM SHELL, GROUND PALM OIL FUEL BASED LIGHTWEIGHT CONCRETE

محل انتشار:

سومین کنفرانس بین المللی بتن و توسعه (سال: 1388)

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خلاصه مقاله:

Compressive strength and water permeability of concretes containing ground palm oil fuel ash (GPOA) and ground rice husk–bark ash (GRBA) were investigated. From the tests, the replacement of Portland cement by both materials resulted in the higher water demand in concrete mixtures as compared to ordinary Portland cement (OPC) concrete with compatible workability. The compressive strengths of concretes containing 20% of GPOA and GRBA were as high as that of OPC concrete and were reduced as the increase in the replacement ratios. Although the compressive strengths of concrete with the replacement of GPOA or GRBA up to 40% were lower than OPC concrete, their water permeabilities were still lower than that of OPC concrete. These results indicate that both of GPOA and GRBA can be applied as new pozzolanic materials to concrete with an acceptable strength as well as permeability.

کلمات کلیدی:

oil palm shell, ground palm oil fuel ash, ground rice, lightweight concrete, permeability

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