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Title:	Development of Classified Fly Ash as a Pozzolanic Material
Author:	Sumrerng Rukzon ; Prinya Chindaprasirt
Abstract:	This research studies the potential for using classified fly ash from Mae Moh power plant in Thailand as a pozzolanic material. Three different fly ash finenesses viz., coarse Original Fly Ash (OFA), Medium Fly Ash (MFA) and Fine Fly Ash (FFA) were used for the study. Ordinary Portland Cement (OPC) was partially replaced with fly ash at 20 and 40% by weight of binder. The water to binder ratio was kept constant at 0.5 and the flow of mortar was maintained at 110Ã‚Â±5% with the aid of superplasticizer (SP). Compressive strength, carbonation depth and porosity test of mortars were determined. FFA has a high potential to be used as a good pozzolanic material. The use of FFA produces mortars with good strength and low porosity. The resistance to carbonation of mortar improves with partial replacement of FFA in comparison with the normal coarse fly ash. The use of FFA results in a strong and dense mortar which is due to better dispersion and filling effect as well as an increase in the pozzolanic reaction.
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