THE STUDY OF WALLET FOAMED CONCRETE UNDER IN-PLANE COMPRESSION

By

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DECLARATION

I, Hafizi bin Che Hamzah, 2003479498, confirm that the work is my own and that appropriate credit has been given where reference has been made to the work of others

(.....)
Hafizi Bin Che Hamzah
9 April 2007

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ABSTRACT

Foamed concrete is a technology used in construction industries to replace aggregate with foaming agent, which consist of synthetic and protein based. Foamed concrete has low density, which is approximately 300kg/m3 – 1800kg/m3. Although the weight is small, it is a highly workable, self-leveling, self-compacting, good thermal insulation and so on. It gives benefit to the construction industries as an alternative method for replacing aggregate in concrete in order to prevent from using aggregates continuously that may decrease the volume of the natural aggregate besides producing better quality of the concrete. The objective of this project is to determine the compressive strength of the wallets foamed concrete of density 1000kg/m3 and 1200kg/m3 and to compare the performance of wallets foamed concrete and wallets clay brick under in plane compression. All work is all ready carried out at heavy laboratory by using wallet formwork 600mm x 600mm x 100mm based on the cement sand ratio 1:2 and 1:30 for foaming chemical ratio. All the data for compressive strength was recorded at age 1,7 and 28 days. Based on the results, foamed concrete added with admixture Glenium C380 give highest values for the compressive strength compared to the normal foamed concrete and clay brick.

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