

THE STUDY ON THE EFFECT OF GROUND GRANULATED BLASTFURNACE SLAG TO CONCRETE'S COMPRESSIVE STRENGTH

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ABSTRACT

Nowadays, there are many researches done to improve the performance and quality of the concrete. One of the researches is on the use of supplementary cementing materials (SCM) which is becoming common in the concrete industry. SCM can be used to replace some of Portland Cement in certain quantity or even used together in concrete industry. These include Pulverished Fuel Ash (PFA), Ground Granulated Blastfurnace Slag (GGBS), Condensed Silica Fume (CSF) and etc. SCMs are waste by-products requiring very little, if any, additional energy to produce; and when combined with energy intensive normal Portland Cement to make concrete, it helps to improve the quality of the concrete. Moreover the lime stone is limited natural resource. By reducing the usage of Ordinary Portland Cement and adding it with SCMs, it also can be considered as part of energy saving.

In this project, Ground Granulated Blastfurnace Slag is of the main concern. Though the features about the GGBS may be a lot, but the scope is limited only on the effect it brings on concrete's compressive strength as it is mentioned as the title.