

CEMENT MIXTURE USING WATERFALL STONE POWDER OF TITI HAYUN KEDAH

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APPROVAL AND DECLARATION SHEET

This project report titled cement mixture using waterfall stone powder of titi hayun, kedah was prepared and submitted by MOHD HAFIZ B. RODZI (Matrix Number : 071050470) and has been found satisfactory in term of scope, quality and presentation as partial fulfillment of the requirement for the Bachelor of Engineering (Manufacturing Engineering) in University Malaysia Perlis (UniMAP).

Checked and Approved by

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2010



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**CEMENT MIXTURE USING WATERFALL STONE POWDER OF TITI HAYUN
KEDAH**

ABSTRACT

This project conducted to study whether the mixture concrete with stone from Titi Hayun, Kedah can be done to produce same strength with original strength cement. Normally cement strength is enough already to generate construction in nowadays compared with only used stone solely a long time ago. To ensure scientifically and technical approach of this phenomenon, we have decide to carry out this studies to ensure the factors which influenced that cement and stone strength. Compression test is used to evaluate that building material strength based on the British standard. This is a new alternative that we try to put forward and the objective of this study is to reduce the percentage of cement used inside the construction field and reduces the cost of cement current rising. We also would like to make a suggestion by trying to use waterfall stone in other areas that can be commercialized as added substance which can save cement use inside construction field. By applying present knowledge in this project, we confident that this natural world source will be able to contribute to something has value on market now and open company view cement production to reduce the cement production cost on the whole its.



CAMPURAN SIMEN MENGGUNAKAN SERBUK BATU AIR TERJUN DARI TITI HAYUN KEDAH

ABSTRAK

Projek ini dijalankan untuk mengkaji sama ada campuran simen dengan batu dari titi hayun, kedah dapat dilakukan agar menghasilkan kekuatan yang sama dengan kekuatan asal simen. Kebiasaannya kekuatan simen sudah cukup untuk menghasilkan pembinaan pada zaman sekarang berbanding dahulu yang hanya menggunakan batu semata-mata. Bagi memastikan secara saintifik dan teknikal tentang fenomena ini, kami telah membuat keputusan untuk menjalankan kajian ini dan selanjutnya cuba mengenalpasti faktor-faktor yang mempengaruhi kekuatan simen dan batu tersebut. Ujian mampatan digunakan untuk mendapatkan dan menilai kekuatan bahan binaan tersebut dengan berlandaskan piawai British. Ini adalah satu alternatif baru yang cuba kami ketengahkan dan kajian ini dilakukan agar dapat mengurangkan jumlah penggunaan simen didalam bidang pembinaan seterusnya mengurangkan kos penggunaan simen yang meningkat sekarang. Kami juga ingin membuat cadangan untuk mencuba batu air terjun di kawasan lain yang dapat dikomersialkan sebagai bahan tambahan yang dapat menjimatkan penggunaan simen didalam bidang pembinaan. Dengan mengaplikasikan pengetahuan sedia ada di dalam kajian dan analisis yang dijalankan, kami yakin bahawa sumber alam semulajadi ini akan dapat menyumbangkan kepada sesuatu yang mempunyai nilai di pasaran sekarang dan membuka pandangan syarikat penghasilan simen untuk mengurangkan kos penghasilan simen secara amnya.

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