

CEMENT MIXTURE USING WATERFALL STONE POWDER OF BATU HAMPAR KEDAH

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UniMAP

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APPROVAL AND DECLARATION SHEET

This project report titles experiment studies of cement mixture using waterfall stone at Batu Hampar Kedah was prepared and submitted by Muhamad Aiman B. Abol Hassan (Matrix Number : 071050541) and has be found satisfactory in terms of scope, quality and presentation as partial fulfillment of requirement for the Bachelor of Engineering (Manufacturing Engineering) in Universiti Malaysia Perlis (UniMAP)

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EXPERIMENTAL STUDIES CEMENT MIXTURE USING WATERFALL STONE AT BATU HAMPAR KEDAH

ABSTRACT

This project in its present form is the result of experimental studies using Batu Hampar waterfall stone to reduce the cost of cement manufacturing. The initial idea of this project was to determine the ability of Batu Hampar waterfall stone using technical method and scientific approach. In order to finish this project, some analysis has been done to investigate the benefits of the waterfall stone based on the compressive test using high technology equipment. For the compressive test, the standard concrete sample has been the strength benchmark in order to compare the effectiveness of the research about the experiment mixture (90% cement + 10% waterfall stone). This resource can be used in building sector to reduce the cost and it's also can be exploited into the other product based on the element contains that have high market value.

KAJIAN EKSPERIMEN CAMPURAN SIMEN MENGGUNAKAN BATU AIR TERJUN BATU HAMPAR KEDAH

ABSTRAK

Projek ini menerangkan keputusan dari eksperimen yang menggunakan batu air terjun dan di campurkan dengan simen untuk tujuan mengurangkan kos pembuatan simen. Idea asal projek ini adalah untuk mengkaji kekuatan batu air terjun di kawasan air terjun batu hampar kedah dengan menggunakan cara-cara teknikal dan saintifik. Bagi menyiapkan projek ini, beberapa analisa telah dilakukan untuk mencari kelebihan batu air terjun berdasarkan ujian tekanan yang menggunakan alat yang berteknologi tinggi. Bagi ujian tekanan contoh konkrit yang standart digunakan sebagai penanda aras kekuatan bagi mendapatkan perbandingan keberkesanan penyelidikan menggunakan campuran (90% simen + 10% batu air terjun). Sumber asli ini juga boleh digunakan di sektor pembangunan bagi mengurangkan kos dan ianya juga boleh digunakan untuk di jadikan produk lain berasaskan kandungan elemen yang mempunyai nilai pasaran yang tinggi.

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