KAJIAN PERBANDINGAN PENGGUNAAN BERBAGAI MEREK SEMEN TERHADAP HUBUNGAN KUAT TEKAN DAN KUAT LENTUR BETON PERKERASAN KAKU

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ABSTRAK

The cement products consist of several elements which is believed having advantages and disadvantages. In the market, some cement brands, either local or imported, are trying to promote their best quality. However, during the construction, the same cement type might differ in the quality. The research aims to compare the compressive and flexural strength of three different brand, Padang Cement, Holcim Cement and Conch Cement. The cylindrical and beam sample with Fc'30 and water-cement ratio 0.42 are considered in the study. The study indicated that for the identical water-cement ratio, the Holcim Cement has higher slump while Padang and Conch tend to show same level of slump. In compression test, Padang Cement is superior compare to other brand. Furthermore, it is also observed that the correlation of Fc and Fs of Concrete made from Padang Cement is more consistent in comparison with Conch and Holcim Cement. It is found that the constant (K) varies for three different cement. The test constant tend to be higher than empirical constant. The interface zone result test shows that the cylinder and beam sample of Holcim Cement has more segregated material compared to others. It might cause by binding strength Holcim Cement is lower than Conch and Padang Cement.

Keywords: Cement, compressive, flexural strength, the constant, interface

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