

ABSTRAK

Bata beton ringan saat ini sangat banyak digunakan pada pekerjaan konstruksi gedung, karena memiliki berat volume antara 300kg/m³ sampai 1840kg/m³ sehingga mampu mereduksi beban konstruksi tersebut. Material penyusun bata beton ringan berupa semen, pozzolan, agregat ringan dan juga bahan pengembang yang bisa menghasilkan pori didalam beton tersebut. Pada penelitian ini, bahan penyusun benda uji bata beton ringan menggunakan campuran dari lumpur lapindo Sidoarjo, semen, foaming agent dan air. Uji coba yang dilakukan adalah membuat bata beton ringan dengan tipe yang bervariasi untuk menemukan hasil analisis uji tekan, desinitas dan daya serap air bata beton ringan. Berdasarkan analisis yang telah dikerjakan, didapatkan kesimpulan bahwa kuat tekan tertinggi yang diperoleh setelah melakukan percobaan berdasarkan variasi konsentrasi lumpur lapindo adalah pada konsentrasi lumpur 20%, desinitas terendah adalah pada konsentrasi lumpur 7,5%, dan daya serap air terendah pada konsentrasi lumpur 7,5%

Kata Kunci: Bata beton pejal, lumpur lapindo, kuat tekan, daya serap air, desinitas beton.

ABSTRACT

Currently lightweight concrete bricks are widely used in building construction work, because they have a volume weight of between 300kg /m³ to 1840kg /m³ so that they can reduce the construction load. The constituent materials for lightweight concrete bricks are cement, pozzolan, lightweight aggregate and also a developer material that can produce pores in the concrete. In this study, the material for lightweight concrete brick specimens used a mixture of Sidoarjo Lapindo mud, cement, foaming agent and water. The trials carried out were making lightweight concrete bricks with various types to find the results of the compressive test analysis, desinity and water absorption capacity of lightweight concrete bricks. Based on the analysis that has been done, it is concluded that the highest compressive strength obtained after conducting an experiment based on variations in the concentration of Lapindo mud is at a sludge concentration of 20%, the lowest desinity is at a sludge concentration of 7,5%, and the lowest water absorption is at a sludge concentration of 7,5%.

Keywords: *solid concrete brick, Lapindo mud, compressive strength, water absorption, concrete desinity*