

ABSTRAK

Penelitian ini dilakukan untuk menganalisa kuat tekan beton polimer menggunakan agregat kasar berupa kramik 45%, batu pecah 55% serta resin epoxy dan hardener (2:1) serta pasir sebagai campuran pasta perekat nya. Benda uji yang di buat sebanyak 3 buah, dengan kadar keramik yang sama 45 % dan varian kadar konsentrat pasta polimer sebanyak 20%, 40%, dan 50%. Tinjauan analisis penelitian ini adalah kuat tekan dengan benda uji kubus 15 x 15 x 15 cm.

Hasil pengujian kuat tekan beton BPK45₍₁₎ memiliki kuat tekan yang sedang 22,12 Mpa, BPK45₍₂₎ 16,59 Mpa dan BPK45₍₃₎ 36,92 Mpa. Penurunan Persentase nilai kuat tekan yang didapat BPK45₍₁₎ sebesar 25% terhadap BPK45₍₂₎ dan kenaikan persentase nilai BPK45₍₂₎ sebesar 55,05% terhadap BPK45₍₃₎.

Kata Kunci : Polimer, Resin Epoxy, Kuat Tekan, keramik, Agregat Kasar, Agregat Halus

ABSTRACT

This research was conducted to analyze the compressive strength of polymer concrete using coarse aggregate in the form of 45% ceramic, 55% crushed stone and epoxy resin and hardener (2:1) and sand as a mixture of adhesive paste. Three test objects were made, with the same ceramic content of 45% and variants of polymer paste concentrate content of 20%, 40% and 50%. Overview of the analysis of this study is the compressive strength of the test object cube 15 x 15 x 15 cm.

The compressive strength test results of BPK45₍₁₎ concrete have moderate compressive strength of 22.12 Mpa, BPK45₍₂₎ 16.59 Mpa and BPK45₍₃₎ 36.92 Mpa. The percentage decrease in the compressive strength value obtained by BPK45₍₁₎ was 25% against BPK45₍₂₎ and the percentage increase in the value of BPK45₍₂₎ was 55.05% against BPK45₍₃₎.

Keywords : Polymer, Epoxy Resin, Compressive Strength, ceramics, Coarse Aggregate, Fine Aggregate