ABSTRAK

Penelitian kuat tekan ini berupa beton polimer dengan komposisi terdiri dari pasta polimer sebagai media perekat beton dengan *filler*, agregat halus, dan variasi agregat kasar dengan gradasi monoton 15 mm, 25 mm, dan 30 mm terhadap volume silinder. Tinjauan analisis penelitian ini adalah kuat tekan dengan benda uji silinder 15 cm x 30 cm. Benda uji **BSL0$_1$** dengan campuran slag 0% gradasi agregat kasar 15mm, **BSL0$_2$** gradasi agregat kasar 25mm, dan **BSL0$_3$** gradasi agregat kasar 30mm.

Hasil pengujian kuat tekan beton didapat nilai kuat tekan beton dengan campuran resin *epoxy*, **BSL0$_1$** memiliki kuat tekan yang tinggi didapat 49,5 Mpa jika dibandingkan dengan ke dua benda uji lainnya yaitu **BSL0$_2$** didapat 45,6 Mpa dan **BSL0$_3$** didapat 43,9 Mpa. Penurunan Persentase nilai kuat tekan yang didapat **BSL0$_1$** sebesar 3,96% terhadap **BSL0$_2$** dan **BSL0$_2$** sebesar 1,70% terhadap **BSL0$_3$**.

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

ABSTRACT

This compressive strength research is in the form of polymer concrete with a composition consisting of polymer paste as an adhesive medium for concrete with filler, fine aggregate, and coarse aggregate variations with monotonic gradations of 15 mm, 25 mm, and 30 mm to the cylinder volume. Overview of the analysis of this study is the compressive strength with a cylindrical specimen 15 cm x 30 cm. The test object was ***BSL0₁*** *with a mixture of 0% slag grading 15mm coarse aggregate,* ***BSL0₂*** *grading 25mm coarse aggregate, and* ***BSL0₃*** *grading 30mm coarse aggregate.*

The results of testing the compressive strength of concrete obtained the value of the compressive strength of concrete with a mixture of epoxy resin, ***BSL0₁*** *has a high compressive strength obtained 49,5 MPa when compared to the other two test objects, namely* ***BSL0₂*** *obtained 45,6 MPa and* ***BSL0₁*** *obtained 43,9 MPa. The decrease in the percentage of compressive strength obtained by* ***BSL0₁*** *is 3,96% against* ***BSL0₂*** *and* ***BSL0₃*** *is 1,70% against* ***BSL0₃****.*

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