ABSTRACK

Coarse aggregate is the biggest component in the concrete. The One consiatuent of material. If the aggregate grains have the same size, the result of pores volume will be larger and vice versa if the agregat have variated size, the pore between grains will be small because half part of pores will filled with smaller grains, so the pores will be reduced.According to field observation at the real condition not all of the waker followed the rule of mix design that is like the plan. Bassed on these issues, this study was conducted to know the influenced of grains size of course agregat changes from compressive strength of concrete.

Method of the mix design SNI 03-2834-2000 with use changing of ukuran butiran max 40 mm, 20 mm dan 10 mm based on max design 40 mm for compressive strength of concrete.

Planning method used to determine the effect of changes in grain size of coarse aggregate is SNI 03-2834-2000 using changes in maximum grain size of 40 mm, 20 mm and 10 mm by 40 mm mix design for concrete compressive strength.

Based on this study, the compressive strength test results obtained using a 40 mm maximum grain size is 20.25 MPa, a maximum of 20 mm is 17.27 MPa and a maximum of 10 mm is 12.56 MPa. The compressive strength test results showed the percentage decrease due to changes of grain size of coarse aggregate maximum of 40 mm was changed to 20 mm have result 19.40% and for changes in grain size coarse aggregate maximum of 40 mm was changed to 10 mm have result 19.63% against the concrete grain size a maximum of 40 mm.

Keywords: *Grains, Coarse aggregate, Mix Design, Compressive Strength*