

ABSTRACT

Concrete compressive strength is the ability to receive a force per unit area. The use of the admixture can make concrete mixing easier (workability), and to accelerate the work hardening, raise the quality of concrete and it can reduce the water content of the concrete mix.

The composition of the research was the procurement of aggregate from Bone river, aggregate testing included testing of the aggregate density, testing of the gradation (sieve analysis), testing of concrete compressive strength. Furthermore, after all the aggregate qualified in test next process was the mix design. SNI method was used in this research. Then test the procedure of concrete mixture, compacting and molding the concrete, and finally concrete compressive strength testing which done when the concrete reaches 28 days starting from the time of the opening of the concrete mold.

The highest result of compressive strength testing was 22 039 MPa. The test result is lower than f'_c design. By the result of the test, it can be known that the aggregate in the Bone river that taken under Talumolo bridge II has not been good classification in the implementation of concrete mixed with aggregate 30% attrition rate.

Keywords: Concrete, admixture, compressive strength, aggregate.