ABSTRACT

INFLUENCE OF AGGREGATE SHAPE AND
TEXTURE OF CONCRETE QUALITY

Composed By:
Student I : Arya Wicaksana
NRP : 3107.030.062
Student II : M. Arif Zainudin
NRP : 3107.030.098
Counsellor Lecturer : Ir. Boedi Wibowo, CES
NIP : 131.453.666

Aggregate is a mixture of concrete tied together by adhesive cement serves as a filler in concrete. The author tries to use natural stone aggregate and crushed stone as coarse aggregate to determine whether the effect of aggregate shape and texture of concrete quality.

In this test a cylindrical concrete planned size 15/30 cm, with immersed for ages 3, 7, and 28 days with 15 specimens of each mixture. At 584.93 kg/cm² with FAS get 0.3; 423.88 kg/cm² with 0.5 and 261.90 FAS FAS 0.7 kg/cm² with crushed stone for concrete loamy. In a mixture of natural stone that is equal to 508.95 with FAS 0.3 kg/cm²; 364.39 kg/cm² with 0.5 FAS and 216.59 kg/cm² with 0.7 FAS

From the test results, loamy crushed stone concrete compressive strength value is higher than concrete loamy natural stone, because stone with a rough surface has areas of friction that is greater than natural stone. Besides the FAS value also affects the value of compressive strength of concrete produced.

Key words: mixtures, concrete, compressive strength.