

ABSTRACT

FADILLAH IKHSAN NURAHMAN . *Utilization of Ash Shell Mussels Lokan As Substitution of Cement in Concrete* . Thesis , Jakarta : Department of Civil Engineering , Faculty of Engineering , State University of Jakarta , in 2016 .

This study aim this research is to know the use of ash shell mussels lokan in testing of compressive pressing power of in order to know maximum pressing power in concrete in various percentages, that are 0 % , 5 % , 10 % , and 15 % from the weight of cement for concrete design f ' c 20 MPa with element of water cement factor of 0.55 and a slump of 100 ± 20 mm.

This research was conducted at the Material Testing Laboratory , State University of Jakarta in May 2016 to June 2016. Materials added the manufacture of concrete in this study is gray seashell shells were destroyed using a machine disk mill burned at a temperature of 800°C for 4 hours . This research method using the experimental method to the test object cylinder diameter of 15 cm and 30 cm high with the number of test objects as much as 60 pieces . Testing the compressive strength of concrete using the tool CrushingTest Machine.

The results of this study indicate that there are differences in the control of concrete and concrete mixture of ash shells seashell . The higher the ash content seashell shells will further reduce the compressive strength of concrete . The test results of concrete mixture of ash shells seashell optimum is 10% with an average compressive strength of concrete high of 20.84 MPa .

Keywords : Shell Mussels Lokan, Concrete , Cement , Compressive Strength