

TO INVESTIGATE THE EFFECT OF FIBER GLASS WOOL ON CONCRETE STRENGTH

Prepared by: Chen Wei Yin

ABSTRACT

The objective of this project is to provide some exposure to students so that they can be well-prepared to handle actual project after graduation. Through this project, students can learn and understand more about the courses taught in throughout the program.

The title of my project is 'To Investigate the Effect of Fiber Glass Wool on Concrete Strength'. As we know, fiber glass is used to increase concrete strength in construction. Due to high costs of fiber glass, research has to be done to provide an alternative to the use of fiber glass. Besides, by using fiber glass wool in concrete, concrete unit weight can be reduced. Therefore, I have chosen this project title.

In this project, I will vary the percentage of fiber glass wool in concrete cubes to test its effect on concrete compressive strength. The percentage of fiber glass wool that will be added will be calculated based on the percentage of fine aggregate in the concrete mix. I will produce 63 concrete cubes and test the cubes for compressive strength on the 7th, 14th and 28th day. The self-weight of the cubes for different percentages of fiber glass wool will also be obtained.

After the cubes have been tested, graphs will be prepared and conclusion will be made on the results. The cost for concrete cubes with and without fiber glass wool reinforcement will also be determined.