

A STUDY OF COMPRESSIVE TEST, TENSILE TEST, & FLEXURAL TEST ON CONCRETE & CORRELATION BETWEEN THREE TESTS

Prepared by: Chin Song Wee

ABSTRACT

Concrete is made from cement, aggregates (sand and crushed rock or gravel) and, crucially water. The water is important for two reasons. Firstly, it is the water added to the mix that makes the concrete moldable and, secondly, it is the hydration reaction between the water and the components of the cement that leads to the cement's hardening, so binding the aggregate of the ingredients – their shape, size and the nature of the loading between matrix and particle. The cement paste acts as the continuous phase that embeds particles of sand and aggregate.

For this entire project, it is concern about the study of strength testing of hardened concrete (compressive test, tensile test and flexural test). Besides that, the correlation between these three tests also will be discussed by obtaining the results after the laboratory work.