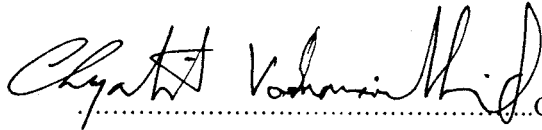
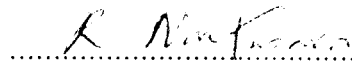


THESIS TITLE : A COMPARISON OF EFFECTIVENESS OF CONCRETE CURING
COMPOUND WITH COMMON CURING METHODS

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ABSTRACT

The aim of this project is to study the effectiveness of the concrete curing compounds available in the market. They were then compared with the common curing conditions, e.g. , air curing, under water curing, moist curing and plastic film curing. The concrete curing compounds were sprayed on concrete cylinders, following the instructions of the producers and the effectiveness was determined by the percentage loss of water in the concrete cylinders. The results showed that most concrete curing compounds were practically the same as that of the air curing condition. Furthermore, the compressive strength of concrete cylinders cured in the compounds reflected similar pattern.

Splitting tensile test was used to determine if concrete curing compounds affect concrete bond strength. The results showed that most concrete curing compounds did not hinder concrete bond strength. The results also showed that two samples of concrete curing compounds exhibited higher value of bond strength whereas a concrete curing compound which consisted of wax-emulsion characteristic decreased the bond strength markedly.

Standard tests on water retention (ASTM C 156) of concrete curing compounds were also conducted and that all of them failed to meet the standard.