

Thesis Title	A Study of Concrete Flat Sheet Properties which Reinforced by GRP Waste
Student	Mr. Chare Khemakam
Student ID.	39065108
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Thesis Advisor	Asst.Prof.Dr. Pachernchai Chaiyasith
Thesis Co-advisor	Assoc.Prof.Dr. Aree Wichianchai

ABSTRACT

The objective of this study was to find the possibility of using glass fiber reinforced plastic (GRP) waste to reinforce in glass fiber reinforced concrete (GRC) flat sheet manufacturing process. Bonding agent was added to improve the mechanical properties of GRC. These properties were then tested every month for 3 months. The testing methods were ASTM C 39-96, ASTM C 496-96, ASTM C 947-96 and ASTM C 948-94

It was found that the particle size which are greater than 4.75 millimeters and 2 percent of the weight of matrix gave the strongest reinforced property. When considered to either waste disposal or convenience, non sieved GRP can be used. But the particle size which are less than 4.75 millimeters were not suitable to be used as an aggregate in concrete. After using bonding agent to improve the mechanical properties, the mechanical properties were increased approximately 50 percent. The results of study of long term property for 3 months showed satisfaction mechanical properties.