

Thesis Title	The Development of Coating Material mixed with Rubber Latex for Irrigation Canel
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Abstract

This research aims to analyze the properties of coating material mixed with pre- vulcanized latex for irrigation canal maintenance in order to prevent water seepage. Also the research analyzed the resistance of cement paste mixed rice husk fly ash and pre- vulcanized latex mixture against sulfate. The laboratory tests were performed to study the improvement in increasing engineering properties of coating material in irrigation canal wall. Different proportion of cement paste with polymer concrete (P/C) 5%, 10% and 15% were analyzed. Rice husk fly ash was mixed with portland cement in different proportions of 5%, 10% and 15% of portland cement by weight to analyze the best proportion. The results of the research indicate that water cement ratio (w/c) 0.4, polymer concrete ratio (P/C) 15% and rice husk fly ash portland cement ratio 15% gives the best performance. Average strength of the mixture on 28th day were, 316 ksc compressive strength, 29 ksc flexural strength and 47 ksc shear strength. Average water absorption of the mixture was 3.25% and sulfate resistance of coating material was 3.25%.

Keywords : pre-vacalized latex, rice husk ash, water seepage, irrigation canal