

Weeraya Singto 2011: Development of Concrete Block Mixed with Rubber Crumb for Insulating and Skidproof Material. Master of Science (Environmental Technology and Management), Major Field: Environmental Technology and Management, Department of Environmental Science. Thesis Advisor: Assistant Professor Jukkrit Mahujchariyawong, Ph.D. 94 page

The alternative of waste utilization for rubber waste is reuse as raw material which applied the characteristics of insulation and skid resistance. Concrete block is the building material matching to these characteristics. This study aimed to develop of concrete block mixed rubber crumb from tire waste, and test some characteristics for building and outdoor works. The results showed that development of concrete block mixed rubber crumb had a high potential in the terms of special properties and competition. The developed concrete blocks had a lower dry density which effected to decrease weight per piece and reduce the transportation cost, and a standard compressive strength which kept the product quality and the special properties of skid resistance and insulation which supported to energy saving activities. The suitable materials and ratio for developing concrete block mixed rubber crumb were 12 and 16 mesh mixing rubber crumb, and 5% (W/W) of rubber crumb mixing ratio.

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