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Basic Comparison of Control and Modified Asphalt Properties

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***Abstract*— Pakistan is a developing country and needs a more durable road for the development, growth and blooming of industries and economy. This research provides a way to utilize the recycle waste material, such as used tyre rubbers, in form of crumb rubber in the preparation of asphalt mixture. The particular reference to the engineering materials using dry process. Crumb rubber is a waste, recycled material and extracted from the old or used tyres. The dry process involves the mixing of crumb rubber with hot aggregates prior to mixing with bitumen with a comparison to the current motorway named (M-9) from Karachi to Hyderabad, design constituent of asphaltic base course were selected. The M-9 route construction has its own importance to play a vital role in the development of the country. However, due to the traffic density and heavy axle loading on this route, the conventional method needs to be modified. The required material and specifications are collected, controlled, and modified samples with crumb rubber were prepared and tested in the laboratory. The performance of the Current & Modified mixtures is evaluated on the basis of performance by evaluating the optimum bitumen content of the control and modified asphalt. Additionally, achieving beneficial use of crumb rubber as modified asphalt mixtures.**

***Keywords*—control mix, crumb rubber, crumb rubber modified mix, dry process.**