

Strength Evaluation of Cement Concrete Pavement by using Polypropylene And Polyester Fiber as a Reinforced Material

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Abstract: Road traffic is increasing steadily over the years. An international forecast predicts that such increase will continue in near future. Even in case of developed countries, there is a shortage of funds required for new infrastructure projects, both for constructing them and more significantly towards their maintenance and repairs. The position in the context of a developing country like India is obviously far worse. As a result, more and more roads are deteriorating, and the existing pavement structure is often found to be inadequate to cope up with the present traffic. Most of our bituminous pavements today, which are badly suffering from distresses like rutting, shoving, cracking etc., are overdue for rehabilitation/strengthening. This will involve huge cost and consumption of scarce physical resources like aggregates and bitumen. Cost effectiveness of PCC overlays bituminous overlay, therefore, needs to be examined. PQC roads on average have proved to be quite cost effective besides giving an additional life of 20 to 30 years on average. PQC stands for Pavement Quality Concrete made with larger size aggregates following IRC specifications and laid over a Dry Lean Concrete (DLC), concrete subbase course. PQC construction is explicitly used for highway concrete pavements and runway pavements to take heavy loads.

Keywords: Rehabilitation, Innovative, Asphalt Pavement, Strengthening

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