

Storm Water Runoff Solution-Permeable Pavements

Savan Patel¹, Kairav Shah², Chintan Shingala³, Vaghashiya Sahil³

^{1,2,3,4} *Bhagwan Mahavir College of Eng. & Tech, Surat*

Abstract- The plastic wastes could be used in road construction and the field tests withstood the stress and proved that plastic wastes used after proper processing as an additive would enhance the life of the roads and also solve environmental problems. Plastic use in road construction is not new. It is already in use as PVC or HDPE pipe mat crossings built by cabling together PVC (polyvinyl chloride) or HDPE (high-density polyethylene) pipes to form plastic mats. Waste plastic is ground and made into powder; 3 to 4 % plastic is mixed with the bitumen. The durability of the roads laid out with shredded plastic waste is much more compared with roads with asphalt with the ordinary mix. The use of the innovative technology not only strengthened the road construction but also increased the road life as well as will help to improve the environment and also creating a source of income.

INTRODUCTION

Plastic Roads Mainly Use Plastic Carry Bags, Disposable Cups And Bottles That Are Collected From Garbage Dumps As An Important Ingredient & Also Plastic Granules

Of The Construction Material So It Will Be Decrease Pollution & Also Increased

The Road Life As Well As Will Help To Improve The Environment And Also Creating A Source Of Income.

1. More durability & Improved load bearing capacity and skid resistance.
2. Plastic disposal & Cracks, abrasion, weathering and pot holes is reduced.
3. Better resistance towards rain water and water Stagnation.
4. Less wear and tear of vehicles & Cost of the road will come down, as the road life is increased by 2 to 3 times & The maintenance cost of road is very less.
5. Disposal of waste plastic will no longer be a problem & Stronger road with increased Marshall Stability Value & No stripping and no potholes.

6. Increase binding and better bonding of the mix & Reduction in pores in aggregate and hence less rutting and raveling & No leaching of plastics.
7. No effect of radiation like UV. & Use higher percentage of plastic waste & reduce the need of bitumen by around 10%.
8. Increase the strength and performance of the road & reduce the cost to around Rs. 5000/Km. of single lane road.
9. Generate jobs for rag pickers. Develop a technology, which Is eco-friendly & 100% improvement in fatigue life of roads.
10. Reduced penetration and ductility, a higher softening point & less rutting and cold cracking

CONCLUSION

Plastic Will Increase The Melting Point Of The Bitumen Use Of The Innovative Technology Not Only Strengthened The Road Construction But Also Increased The Road Life Help To Improve The Environment Plastic Road Would Be A Boon For India's Hot And Extremely humid Climate Where Durable And Eco-friendly Road. Which Will Relieve The Earth From All Type Of Plastic Waste. The Waste Plastic Bitumen Mix Forms Better Material For Pavement Construction Use Of Waste Plastics For Pavement Is Best Methods For Disposal Of Waste Plastics the Use Of The Innovative Technology Strengthened The Road Construction And Increases The Road Life As Well As Will Help To Improve The Environment And Also Creating A Source Of Income.

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