



ECO – FRIENDLY PAVER BLOCKS OUT OF PLASTIC WASTE

Shruti Tripathi¹, Research Scholar, Dept. of Civil Engineering, SATI Vidisha, M.P.

Nishant Singh², Research Scholar, Dept. of Civil Engineering, SATI Vidisha, M.P.

Dr. A.K. Saxena³, Professor, Dept. of Civil Engineering, SATI Vidisha, M.P.

Abstract – The aims of this study is to Reuse Plastic Waste dumped in Landfill sites of Country in manufacturing of Paver Blocks. Plastic waste is used as Binding material and replace cement to reduce the cost of paver block when compared to that of convention concrete paver blocks. At present nearly 56 lakhs tones of plastic waste is produced in India every year. The degradation rate of plastic waste is also a very slow process. Hence the study is helpful in reducing plastic waste in a useful way. In this study we have used plastic waste with Sand. The study bears on plastics with transparent bags and films in PP, Polyethylene terephthalate (PET). Plastic waste is melt and mixed with sand. The paver blocks were prepared and tested and the results were discussed.

ISSN : 2278-6848



9 772278 684800

© International Journal for
Research Publication and Seminar

Keywords – Paver block, Plastic waste, Polyethylene terephthalate, Sand.

I. INTRODUCTION

Natural resources are depleting worldwide at the same time the generated wastes from the industry and residential area are increasing substantially. The sustainable development for construction involves the use of Non conventional and innovative materials, and recycling of waste materials in order to compensate the lack of natural resources and to find alternative ways conserving the environment. Advancement in utilization of wastes in paver block as Main ingredient to reduces pollutants in environment and maximizes usage of natural resources. During the production of cement Co₂ is produced and Dumping of Plastic waste at landfill sites also cause global warming respectively. By replacing the cement consumption and reusing the plastic waste environment can be protected. An attempt was made to reuse the Plastic waste and sand with an aim not to lose the strength far from original Paver blocks. From the observations of test results, proportion of Plastic waste and sand can be increased or decreased. The physical and mechanical properties of materials used in Plastic Paver block were investigated.

Note :For Complete paper/article please contact us info@jrps.in

Please don't forget to mention reference number , volume number, issue number, name of the authors and title of the paper