

Effect of stone dust on the specific properties of fresh and Hardened Concrete: A review

¹Vaibhav, ²Reena

¹Research Scholar, Department of Civil, GITM, Jhajjar Haryana

²A.P. Department of Civil, GITM, Jhajjar Haryana

Abstract

This project is aimed at studying the effect of stone dust on the specific properties of fresh and hardened concrete (M25). The experimental tests for fresh and hardened properties of concrete for M25 grade are studied and the results are compared with normal concrete. - Stone dust is a waste material obtained from crusher plants. It has potential to be used as partial replacement of natural river sand in concrete. Use of stone dust in concrete not only improves the quality of concrete but also conserve the natural river sand for future generations.

Keywords: Concrete, Compressive strength, Replacement, Stone dust.

Introduction

Stone dust is a waste material and is generated during blasting and aggregate crushing. The damping of this waste material is also a big problem by using these waste materials in construction work it is very easy to dispose these waste materials. These wastes produce different type of pollutions like air pollution, water pollution, land pollution, etc. Due to these pollutions various types of diseases are produced to the life on the earth. These pollutions are increasing day-by-day due to this waste production so the disposal of these wastes is an serious issue and also the matter of concern.

Concrete is a composite material made of cement, fine aggregate, coarse aggregate and water. At present construction industry is growing exponentially due to several other factors besides increasing developmental activities. This results in huge demand of construction materials. Concrete is most widely used construction material. Major components of concrete are aggregates which are usually available in natural form. Fine Aggregate used in concrete is usually river sand available locally or at nearby location. The naturally available source of fine aggregate is limited as such conservation of the same is inevitable. Going for alternative and supplementary material which can be used as partial or full replacement of conventional material

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