

A REVIEW ON LIME STONE & FLY ASH BASED WITH M-25 GRADE CONCRETE

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ABSTRACT

Cement, sand, and granite metal have been used in the making of concrete since the beginning of time. Excessive use of these not only depletes natural resources, but also has a significant impact on the atmosphere in terms of resource. Aside from that, when quarries process layered slabs, a lot of waste stone material is dumped along the sides of roads, causing a lot of nuisance and an unsanitary environment in surrounding habitations.

Despite the fact that fly ash has superior cementitious properties, large quantities of the material sit idle near steel plants, where it is not used in concrete production.

In this study, constituent natural resources such as FA&CA in M25 grade concrete with 0, 25, 50, 75, and 100 percent and cement with fly ash up to 0, 10, 20, and 30% are substituted with waste stone aggregates in 20 different mix combinations dubbed M1 Mix to M20 Mix. To determine the fresh properties of concrete, slump tests are carried out on regular production after assessing the consistency of all materials used in concrete production. Compressive strength testing was performed after casting and curing for 28 days. 19 of the 20 mix combinations had slightly lower compressive strength than the M1 base mix, but all of the other mix combinations had compressive strength greater than the necessary characteristic strength of M 25 grades concrete.

KEYWORDS: Concrete, Lime Stone & Fly Ash

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