

DURABILITY STUDY OF STRUCTURAL ELEMENTS USING FLY ASH AGGREGATES

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ABSTRACT

Now a days one of the major problem in construction industries is insufficient and unavailability of construction materials. On the other side the main environmental problem is the disposal of the fly ash. In the experimental study, an attempt has been made to use the fly ash in concrete and experiments have been conducted for fly ash aggregate concrete with respect to acid resistance test.

The main theme of this investigation is fully replaced by coarse aggregates by fly ash aggregates (FAA). The Fly ash aggregates were prepared by the adding of cement with fly ash in six proportions such as 10:90 15:85, 20:80, 25:75, 30:70. The specimen cubes were cast and put in acid for 45 days at the end of 28 days & 56 days curing water. Durability of specimens were assessed by immersing them in 3% of NaCl & 1% of sulphuric acid solution, periodically monitoring surface deteriorations and loss in weight.

KEYWORDS: Fly Ash, Cement, NACL, Sulphuric Acid, Fly Ash Aggregate