

Use of fly ash admixed concrete for pavement construction

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The portland cement used for construction of rigid pavements is an energy intensive material and hence efforts are being made to find substitute materials for partial replacement of cement in concrete, and conserve energy. On the other hand, utilisation of coal for generation of power is increasing rapidly. This has resulted in production of large quantities of fly ash from coal burning power plants. Fly ash from thermal power plants can be used as an admixture to concrete for saving cement as well as to provide solutions for its disposal problems. Use of fly ash in concrete would be an environmentally friendly way of utilising a waste material like fly ash. Currently fly ash finds application in road pavement structure, mainly for sub-base /base course and embankment. Fly ash admixed concrete can be a very good material for construction of pavement. It is generally designed as a partial replacement of cement or aggregate or both. This paper describes the different methods of using fly ash in concrete as a paving material, advantages gained by using fly ash in concrete and mechanism of durability increase in fly ash admixed concrete. The experiences of CRRRI for using fly ash admixed concrete are also highlighted.

Key words : *Portland cement; Pavement construction; Admixed concrete*