

Experimental Investigation of Self Curing Concrete Incorporated with Peg and Fly Ash

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Abstract: *Water curing is the most effective curing method to promote continuous hydration of cement and cement supplementary material in concrete. In practice, this ideal curing condition is provided for a limited period in concrete construction. Membrane curing is used to prevent the drying of freshly place concrete surface and to minimize the risk of plastic shrinkage cracking, particularly in concrete slabs. Self-curing admixture is relatively new chemical admixture to improve the water retention in concrete. This work discusses the result of an experimental investigation into the evaluation of a concrete mix with replacement of cement by fly ash up to 30% And PEG-400 is taken 1.0% on M25 mix. The self-curing admixture was found to improve compressive strength of concrete under air stored condition. The lowest drying shrinkage for self-curing concrete indicates the effectiveness of water retention property of the self-curing admixture and it is concluded that a self-curing admixture is a useful ingredient in concrete mixes when conventional water curing procedure is difficult to perform and it also offers improved workability of concrete mix.*

Keywords: peg-400, hydration

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