



Chloride Penetration in Polypropylene Fiber Reinforced Concrete

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Abstract: Chloride penetration in polypropylene fiber reinforced fly ash concrete is studied experimentally by Rapid Chloride Penetration Test. Six Volume fractions of fly ash i.e, 0%, 30%, 40%, 50% and 60% is considered and fibers in three volume fractions of 0%, 0.2% and 0.4% are considered. Fly ash is used as replacement material for cement. The test results indicated that the addition of fly ash and polypropylene fibers decreased the chloride permeability. Addition of fly ash improved the dispersion of fibers in the concrete, resulting in a significant reduction in the chloride penetration in the polypropylene fiber reinforced concrete.

Key words: Concrete, Chloride penetration, Polypropylene, Fibers, Fly ash.

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