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(57) Abstract :

Concrete plays a critical role in design and construction of the nation's infrastructure. Internal micro cracks are inherently present in concrete and its poor tensile strength is due to the propagation of such micro crack, eventually leading to fracture of the concrete. Rehabilitation and strengthening of concrete structures with FRP(Fiber Reinforced Polymers) has been a useful technique since last few years the influence of fiber content on the structural characteristics of fiber reinforced specimens having different fiber volume fractions is investigated in this invention. The parameter of investigation includes compressive strength, split tensile strength and flexural strength. FRP sheets or plates are very suitable for strengthening not only because of their strength, but also due to the simplicity in the application. Different strengthening techniques using FRP like varying the thickness of fiber and loading conditions are studied experimentally. The experimental values of mechanical strengths for polymer concrete without steel fibers were smaller than that for polymer concrete with fibers

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