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# An Experimental Study on Concrete by Partial Replacement of Glass Powder and Quartz Powder in Cement with Steel Fiber

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**Abstract :** Concrete is one of the most widely used construction materials in the world<sup>3</sup>. There is a need to replace a part of cement by some pozzolanic material to reduce the consumption of cement and the environmental pollution can be checked to some extent. Industrial wastes like fly ash, silica fume, blast furnace slag etc, have already established their usage in concrete. Recently the research has shown that the waste glass can be effectively used in concrete either as glass aggregate or as a glass pozzolanic. Steel fiber is also additional added to increase the strength of concrete based on total consumption of coarse aggregate. Concrete with replacement of cement by waste glass powder such as 20%,25% and 30%. Quartz powder replacement of cement with 5% and steel fiber 1% of total coarse aggregate and the results was compared with conventional concrete and without steel fiber.

**Keywords :** Glass powder, Quartz powder, Steel fiber, Compressive strength, split tensile strength.

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