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EXPERIMENTAL STUDY ON FLEXURAL STRENGTH OF ALCCOFINE REINFORCED CEMENT CONCRETE PRISM WITH STEEL FIBER

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ABSTRACT: This Experimental work deals with the effects of alccofine, by optimum replacement of cement with variation of steel fiber on flexural strength. In this study 42 prism samples of size 500 x 100 x 100mm were cast by 10% of alccofine with different percentage of steel fiber 1%, 2%, 3%, 4% and 5% respectively. From the test results, it was found that workability of the mix was slightly decreases compared with the conventional mix due to high bonding of steel fiber in it and slump curve is plotted. The flexural strength of concrete with 10% of alccofine and 5% of steel fiber has higher strength when compared to the conventional concrete and graph was plotted and it was found to be increasing manner. Load displacement curve was drawn and from the curve it was found that initial crack strength and ultimate flexural strength was found to be increasing with increasing volume of fibers. Provided best fit model was developed for all the mixes which are under cured after 7 days and 28 days curing.

Keywords: *Alccofine, Flexural Strength, Steel Fiber*