

TO EXAMINE THE EFFECT ON THE TENSILE STRENGTH OF CONCRETE DUE TO THE ADDITION OF STEEL WIRES

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ABSTRACT

This work presents the results of a research conducted to study the effect on the tensile strength of concrete due to addition of steel wires. The effects on the compression, as the two types of strengths are closely related.

A reference series with normal concrete together with the steel wire reinforced concrete was made. Steel wire type and content were varied and the influence was studied mainly by conducting two types of tests: four-point bending and compression test.

The results obtained suggest that steel wires could be used to enhance the performance of concrete in flexural and compression. It was seen that the flexural strength increased to 28.2% whilst compressive strength was increased to 54.7%. hence this type of steel wire reinforcement may be utilized in future applications.