



## Effect of Copper Slag on the Mechanical Strengths of Concrete

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**Abstract:** This paper presents the effect of copper slag when included in concrete as a replacement material for sand. It focuses on the effect of copper slag on behaviour of concrete. This paper outlines the properties, preparation and testing and finally the results obtained from experimental investigations using copper slag which is a waste by product produced during the smelting process of manufacture of concrete from its ore. Experimental investigations are carried out by replacing sand with copper slag in content of 10%, 20%, 30%, 40%, 50%, 60% and 100% keeping all other ingredients constant. It is observed that the optimum content of copper slag that can be used as replacement material is 40% beyond which the strength starts decreasing.

**Key words:** Copper Slag, Flexure, Split tensile strength, Compression, waste product.

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