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Effect of Bottom Ash as a Mineral Admixture in Concrete

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Abstract: Solid waste management is important for the well-being of our society. Bottom ash, a by-product from coal has several issues related with its disposal. This study investigates the effect of bottom ash as a supplementary cementitious material in concrete. Bottom ash is substituted in 0, 10, 20 and 30% by weight of cement. Slump test, compressive and split tensile strength of concrete were tested. The test results indicate that the substitution of bottom ash for cement improves the strength properties of concrete. The slump value of concrete reduces as the bottom ash increased. The compressive strength of concrete increased as bottom ash increased upto 20% replacement for cement.

Keywords : Solid waste management; bottom ash; cement replacement; slump; compressive strength.

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