

AN INVESTIGATION OF THERMAL BEHAVIOR OF SBA CONCRETE

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ABSTRACT

The present research shows the results of an investigation on compressive strength of concrete after heating to different temperature ranges. The main focus of study is to understand the thermal behavior of concrete containing sugarcane bagasse ash. The five mixes were prepared by replacing cement with SBA. Three cubes from each mix were subjected different temperature ranges and their compressive was determined at 28 days. It is quite obvious from the data that as the temperature increases, there is a huge decline in compressive strength. Where as, the SBA replacement also effects the workability characteristics of concrete. Thus it can be concluded that there is no significant change in thermal behavior with the inclusion of SBA in concrete when heated at higher temperature.

KEYWORDS: Concrete, Compressive Strength, Replacement, Waste Materials, Sugarcane Bagasse Ash (SBA), Elevated Temperature, Water Cement Ratio, Workability