

## Evaluating Cement Brands in Southwestern Nigeria for Local Construction Industries

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**Abstract :** Different brands of cement are used in Nigeria by local contractors for various works without prior knowledge of their performance. Qualities of common cement brands in Southwestern Nigeria were investigated. Elephant, Dangote, Gateway, Purechem, Burham and Five Star cements were selected for the study. Fineness, setting times, chemical composition, compressive and flexural strengths of each of the cement brands were determined. The results showed that all the cement brands contained major oxides in amount within the acceptable values except that the sulphite content of Gateway fell outside the range. Strength comparison indicated that Burham had highest flexural and compressive strength, followed by Elephant and then Dangote while Gateway had the lowest strength at 28 days. It was observed that Dangote cement set earlier than other cement brands. The study has shown that there were differences in performance of the selected cement brands and concluded that the choice of cement brand should be based on the expected performance.

**Keywords :** cement brand, compressive strength, flexural strength, local construction industries

**Conference Title :** ICC 2015 : International Conference on Computational Creativity

**Conference Location :** Zurich, Switzerland

**Conference Dates :** January 13-14, 2015