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# Thermo-mechanical behavior of unfired bricks and fired bricks made from a mixture of clay soil and laterite

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## Abstract

The objective of this paper is to determine the mechanical and thermal properties of unfired and fired clay soil bricks made from a mixture of clay soil and laterite. In this study, the physical, chemical and mineralogical characteristics of raw materials were measured. Then, experiments were carried out on six compositions of clay soil bricks prepared by adding laterite to study the effect on mechanical and thermal properties. The results obtained in this study demonstrate that clay soil brick containing 30 % of laterite is the optimal mixture for both unfired and fired bricks.

**Keywords:** Clay soil; Laterite; Unfired bricks; Fired bricks; Mechanical and thermal properties.

## Nomenclature

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