SECTION C

IMPORTANCE OF CONTROLLING THERMAL PARAMETERS IN BRICK MANUFACTURE TO ACHIEVE QUALITY

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The common building brick presents a problem to the Sri Lankan House Builders. The brick varies from the specified standard brick in both dimensional and compressive strength characteristics. The above variations both pose a set back to achieving quality in brick masonry construction.

In achieving its objective the paper identifies the prevailing causes for the presence of non standard characteristics in the common building brick; to mention a few.

(a) The correct vitrification temperature varies with the clay mineral and the importance of clay technology cannot be over emphasised.

(b) The existing Kiln Technology has poor thermal insulation properties, resulting in underburnt bricks and excess of fuel wood consumption.

(c) An inefficient Kiln Technology results in the production of an inefficient uneconomical brick.

with a view to establishing the correct firing temperatures of various clays found in their natural state in the Puttalam District, experimental results are presented with the analysis. The analysis reveals the ideal firing temperature to be 850 ^{o}C. Any positive or negative variations results in a remarkable drop in the strength of the brick. The analysis presented would be of good value to brick manufacturers in the production of a good quality brick.