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FACTORS INFLUENCING STRENGTHS OF STRUCTURAL
CLAY PRODUCTS FROM MONTMORILLONITIC CLAYS

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(Proposed to be sent for publication to Indian
Ceramics).

SUMMARY

The influence of factors like particle size, lime, sodium chloride, grog content and firing temperature on strength development in bricks prepared from a highly montmorillonitic clay has been studied.

Addition of grog stops drying cracks. Increased additions, in excess of 25 per cent, result in a progressive decrease in the crushing strength of fired bricks. Wet grinding of the clay with 25 per cent grog for an hour results in the maximum strength development of 4115 lb/Sq.in. This is about 100 per cent more than that of the unground mixture. Addition of NaCl beyond 0.5 per cent is detrimental to strength development. A rapid fall in strength is observed for increased amount of lime. The optimum temperature of firing is found to be 1000° C.

No spare copies of the paper are available. The paper is, however, due to be published shortly and the reference will then be given in the Institute's Annual Report and List of Publications.

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