

Statistical Analysis of Compressive Strength of Clay Brick Masonry: Testing

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Abstract:

The Specification for Masonry Structures section of the current governing masonry design document in the U.S., reported by the Masonry Standards Joint Committee (MSJC), contains tables that can be used to determine the compressive strength of clay masonry. However, the majority of the data that are the basis of the current values in the MSJC document were generated in studies done prior to 1970. There have been significant changes in materials and procedures since this time frame. Thus, there is a need to gather and study more recent data that reflect the current type of material typically used at construction sites today, explore various potential influencing factors, and determine how significantly these factors affect the masonry prism compressive strengths.

The authors compiled and studied clay prism test data since 1980 that are representative of the material offered in the marketplace today. Gaps in the available test data were identified and further testing was performed to fill those gaps. This paper presents the results of the testing program performed at the University of Texas at Arlington (UTA).

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