

# **The Effects of Moisture on Compressive Strength and Modulus of Brick Masonry**

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## **Abstract:**

The effects of moisture on the compressive strength and modulus of elasticity of brick masonry are investigated. Eight prisms per mortar type were constructed, and after an extended period of dry curing, four of the eight prisms were placed in a moist room under a rotating sprinkler system, for the last 48 hours of the curing cycle. The testing involved four different mortar types: Type S masonry cement; Type S portland cement lime; and two polymer modified Type S masonry cement mortars. The chord modulus was used to determine the modulus of elasticity. ASTM standards were followed for the determination of both compressive strength and elastic modulus. The test results showed that the wet/dry ratio for compressive strength had an average value of 0.81 and the corresponding ratio for elastic modulus was 0.88.

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