



## Study about Prism Test Method and evaluation of Flexural tensile strength by testing small-scale prisms

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**Abstract :** A masonry prism is an assemblage of masonry units and mortar that is constructed to serve as a test specimen for determining properties of masonry assemblages. Prisms are constructed for compressive strength testing in accordance with ASTM A 447 Standard Test Methods for Compressive Strength of Masonry Prisms. Prisms also are constructed to measure flexural

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bond strength either by ASTM E 518 Standard Test Methods for Flexural Bond Strength of Masonry or C 1072 Standard Test Method for Measurement of Masonry Flexural Bond Strength.

Existing test methods to characterize ASR potential of aggregates and mitigation ability of supplementary cementing materials such as the Accelerated Mortar Bar Test (AMBT) and the Concrete Prism Test (CPT) are widely accepted in the industry. Although, the AMBT is a rapid test, the results from this test can be unreliable, particularly with certain types of aggregates. The CPT is considered as a more reliable test; however, the duration of this test method renders it impractical for routine usage in the industry to screen deleterious materials or inefficient ASR mitigation measures. This research presents a new test method-Miniature Concrete Prism Test (MCPT) that overcomes the deficiencies of the AMBT and the CPT.

**Key Words :** Prism testing, Bricks, Clay etc.

**Introduction :** Prism testing of brick or structural clay tile masonry provides a number of advantages over constituent material testing alone. The primary benefit of prism testing is a more accurate estimation of the compressive strength of the masonry assemblage. Another benefit of prism testing is that it provides a method of measuring the quality of workmanship throughout