

Splitting Tensile and Compressive Strength Relationship of Concrete Paving Blocks

Nader Ghafoori¹ and David R. Smith²

Abstract:

In an attempt to overcome the variations and acceptance criteria of the compressive strength testing, and further to encourage the use of splitting tensile for the strength evaluation of concrete paving blocks; the National Concrete Masonry Association engaged in extensive testing of over 3000 concrete pavers from 17 manufacturers throughout North America. Tensile splitting tests, based on International Standard ISO 4108, were conducted to correlate compressive strength to tensile splitting resistance. This paper presents statistical analyses of the measured parameters and reports on a number of viable correlations. Splitting tensile appears to be a simple, reliable, and suitable test method for the strength evaluation of concrete pavers. Split-tensile and compressive strengths were found to be linearly related.

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¹ Assistant Professor, Southern Illinois University-Carbondale, TMS Member.

² Director of Paving Products, National Concrete Masonry Association.