



Influence of the Concrete Strength, Cylindrical Specimen Size and the Type of Laboratory in Determining the Compressive Strength of Concrete

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Abstract

This paper presents a comparative analysis of the results obtained for testing the compressive strength by means of an interlaboratory test program in hardened concrete, developed in two different laboratories in the Goiânia, GO region, to identify and assess the influence of some factors affecting the results of compressive strength test. For this, we sought to determine the outcome of compressive strength, the influence of the concrete (Class C30 and CAR - High Strength Concrete), the size of the body of proof cylindrical (100 mm x 200 mm and 150 mm x 300 mm) and the type of laboratory. It was concluded that the type of concrete and type of lab results influenced the compressive strength. Moreover, it is noteworthy that the bodies of evidence dimension 100 mm x 200 mm of concrete Class C30 and of CAR (Class C60) presented the results with the highest dispersion.

Keywords: Concrete; Basic Dimension; Compressive Strength; Interlaboratory; Dispersion.