



Influence of the Speed of Loading and Discharging of the Test Machine in Determining the Compressive Strength of Concrete

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Abstract

This paper presents a comparative analysis of the results obtained for the test of compressive strength, through a program of interlaboratory tests on hardened concrete, the Company developed Carlos Campos Consultoria e Construções Ltda., in the School of Civil Engineering Federal University of Goiás and in the Department of Technical Support and Control of Furnas Centrais Elétricas S.A., located in Goiânia-Goiás, to identify and evaluate the influence of some factors involved in test compressive strength. For this, we sought to verify the result of compressive strength, the influence of the type of processor (A and B) and upload speed (0.3 and 0.6 MPa/s) body-of-proof cylindrical size 150 mm x 300 mm in the concrete class C30. It was concluded that the type of laboratory significantly affect the results of compressive strength. Furthermore, it is noteworthy that the body-of-evidence dimension 150 mm x 300 mm concrete class C30, tested with a loading speed of the testing machine of 0.3 MPa/s presented the results to the larger dispersions.

Keywords: Interlaboratory; Concrete; Basic Dimension, Speed of Loading and Unloading; Compressive Strength; Dispersion.