

Relation between Properties of Internally Cured Concrete and Water Cement Ratio

Authors : T. Manzur, S. Iffat, M. A. Noor

Abstract : In this paper, relationship between different properties of IC concrete and water cement ratio, obtained from a comprehensive experiment conducted on IC using local materials (Burnt clay chips- BC) is presented. In addition, saturated SAP was used as an IC material in some cases. Relationships have been developed through regression analysis. The focus of this analysis is on developing relationship between a dependent variable and an independent variable. Different percent replacements of BC and water cement ratios were used. Compressive strength, modulus of elasticity, water permeability and chloride permeability were tested and variations of these parameters were analyzed with respect to water cement ratio.

Keywords : compressive strength, concrete, curing, lightweight, aggregate, superabsorbent polymer, internal curing

Conference Title : ICACE 2015 : International Conference on Architectural and Civil Engineering

Conference Location : Los Angeles, United States

Conference Dates : September 28-29, 2015