

Properties of Self-Compacting Concrete Mixed with Fly Ash

Authors : Abhinandan Singh Gill, Gurbir Kaur Jawanda

Abstract : Since the introduction of self-consolidating concrete (SCC) in Japan during the late 1980's, acceptance and usage of this concrete in the construction industry has been steadily gaining momentum. In the United States, the usage of SCC has been spearheaded by the precast concrete industry. Good SCC must possess the following key fresh properties: filling ability, passing ability, and resistance to segregation. Self-compacting concrete is one of 'the most revolutionary developments' in concrete research; this concrete is able to flow and to fill the most restocked places of the form work without vibration. There are several methods for testing its properties. In the fresh state: the most frequently used are slump flow test, L box and V-funnel. This work presents properties of self-compacting concrete, mixed with fly ash. The test results for acceptance characteristics of self-compacting concrete such as slump flow; V-funnel and L-Box are presented. Further, the compressive strength at the ages of 7, 28 days was also determined and results are included here.

Keywords : compressive strength, fly ash, self-compacting concrete, slump flow test, super plasticizer

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