

TITLE OF ARTICLE: Effects of limestone and super-plasticizer on the fresh properties of self-compacting concrete

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ABSTRACT:The free flow ability of fresh self-compacting concrete (SCC), capable of overcoming obstacles and penetrating

into difficult joints is one of the special properties that differentiate SCC from normal concrete. It can then be

rightly said that the fresh property of self compacting concrete (SCC) is the most important factor that

distinguishes SCC from conventional concrete. Due to the importance of this property to the overall performance

of self-compacting concrete, the tests of fresh SCC must be gotten right since any mistake will compromise the

essence of recurring to SCC in place of normal concrete.

This research attempts to enhance the flow-ability of SCC via replacement of cement with varying dosage of

limestone and super-plasticizer. To validate the improvement of SCC fresh properties, slump test is used to

assess workability, L-box test for passing ability and V-funnel test for filling ability. Test results analyzed with

statistical tools confirmed that the workability and rheological properties of self-compacting concrete can be

improved through the adoption of various dosages of limestone powder.