

## عنوان مقاله:

Evaluation the Effect of Replacing Cement with Rice Husk Ash on Self-Compacting Concrete Properties

## محل انتشار:

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## خلاصه مقاله:

Rice husk ash (RHA) produced under certain conditions from rice husk as an agricultural surplus material can be used in concrete as a pozzolanic material. Pozzolanic materials improve the durability properties of concrete mainly, but their effects on fresh properties and strength can be different depending on the constituent materials and type of concrete. In this paper, RHA produced from the rice farms of Khouzestan province, Iran has been evaluated for the optimal level of replacement in self-compacting concrete (SCC). To this end, the fresh properties and compressive strength of SCC have been investigated. The used RHA contains 87% silica, mainly in the amorphous state, and has an average specific surface area of 399 m<sup>2</sup>/kg. The results obtained in this research show that increasing RHA up to 15 % can improve the fresh properties by up to 10%, but it reduces the compressive strength by about 10%. So the 10-15% replacement of cement with RHA is recommended.

## کلمات کلیدی:

pozzolanic materials, Compressive strength, slump flow, J-ring, V-funnel

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1877395>

