

## عنوان مقاله:

Theoretical study of the effect and performance of self-compacting concrete constituents in improving the characteristics of it

## محل انتشار:

دومین کنفرانس بین المللی پژوهش در مهندسی عمران، زلزله شناسی و مدیریت بحران (سال: 1402)

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## خلاصه مقاله:

The use of self-compacting concrete in places where there is no direct access to compact concrete, such as concrete pouring of dams, and also in places with high volume of reinforcement, where compacting concrete between rebar's is a difficult task, and it is necessary in concrete pouring of complex shapes such as concrete arches. Therefore, the main goal of this research is to investigate the basic concepts in the field of performance of self-compacting concrete constituents in improving the performance and properties of self-compacting concrete. For this purpose, the introduction and then the concept of self-compacting concrete have been reviewed. In the next step, the past research in the field of self-compacting concrete is reviewed. Finally, based on past studies, the performance of components of self-compacting concrete has been theoretically discussed. The results of this research show that one of the factors affecting self-compacting concrete is its paste volume. So, with the increase in the volume of the paste, the flow ability increases and the friction of the grains decreases, because the friction between the aggregates with an increase in internal stress limits the speed of spreading and the ability to fill with self-compacting concrete.

## کلمات کلیدی:

Self-compacting concrete, performance, mechanical properties, aggregate, super-lubricant

## لینک ثابت مقاله در پایگاه سیویلیکا:

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