

عنوان مقاله:

Effect of high temperature on the compressive strength of selfcompacting concrete SCC exposed to fire

محل انتشار:

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خلاصه مقاله:

Generally, concrete structures have a high fire resistance. After fire, it is of economic interest to reuse the structure after appropriate repair based on a reliable assessment of the residual strength. This paper presents an experimental study on the performance of self-compacting concrete (SCC) subjected to high temperature. Six SCC mixtures with different cement grade were made and the specimens of each concrete mixture were heated up to 5 various temperatures (27C°, 100C°, 200C°, 300C°, 400C°). In order to ensure a uniform temperature throughout the specimens, the temperature was held constant at themaximum value for 1 h before cooling. Upon finishing this work, important results on the effect of high temperatures on compressive strength of self-compacting concrete (SCC) were obtained, thus providing a major contribution for the recovery design of structures that had been subject to fire

کلمات کلیدی:

self-compacting concrete, high temperature, compressive strength, fire

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