

## عنوان مقاله:

Residue compressive strength, ultrasonic pulse velocity and mass loss of nano sio2 mortar after exposure to elevated temperatures

## محل انتشار:

کنگره بین المللی علوم و مهندسی (سال: 1396)

تعداد صفحات اصل مقاله: 12

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## خلاصه مقاله:

In this study, the effect of elevated temperatures on chemical composition and mechanical properties of mortars with nano silica was investigated. Mortars with 0.5, 1, 1.5 and 2% nano silica as cement replacement were prepared and then exposed to 200 °C, 400°C, 600 °C, 800 °C and 1000 °C. Residual compressive strength, mass loss and ultrasonic pulse velocity of samples were also obtained. Along with the loss of residual compressive strength, the ultrasonic pulse velocity of mortar was also reduced at elevated temperature. It was found that after an initial increase in compressive strength at 200 °C for the mortar specimens, the strength decreased considerably at higher temperatures. Moreover, 1% replacement of NS showed higher strength for all temperatures.

## کلمات کلیدی:

elevated temperatures, mortar, nano silica, Residual compressive strength, mass loss, ultrasonic pulse velocity

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/755463>

