
OC-51: Study Effect of Libyan Treated Kaolin, by Sonochemical Method on the Properties of Cement Paste and Mortar

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Natural pozzolan (kaolin) (NP) is found south Libya around sebha city. Libyan Kaolin glass is relatively high in silica, and its physical and chemical properties could be referenced with ASTM C618, a Standard Specification for 'Natural pozzolan class N. Treated by sonochemical, sonicated Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete'. The sonochemical was using (horn method) with 100 watt power and 20 kHz frequencies for ½ hour.

The Scanning Electron Microscope (SEM) and particle size analysis and, change colour were used to better understand the mechanism of deterioration of each type of Libyan kaolin after treatment by sonochemical.

This paper presents comprehensive details of the physical, chemical properties of Libyan treated kaolin. It also covers effect of Libyan treated kaolin on consistency, setting times, workability, compressive strength, of cement paste and mortar.