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Suitability of Class F Flyash for Construction Industry: An Indian Scenario

Authors : M. N. Akhtar, J. N. Akhtar

Abstract : The present study evaluates the properties of class F fly ash as a replacement of natural materials in civil engineering construction industry. The low-lime flash similar to class F is the prime variety generated in India, although it has significantly smaller volumes of high-lime fly ash as compared to class C. The chemical and physical characterization of the sample is carried out with the number of experimental approaches in order to investigate all relevant features present in the samples. For chemical analysis, elementary quantitative results from point analysis and scanning electron microscopy (SEM)/dispersive spectroscopy (EDS) techniques were used to identify the element images of different fractions. The physical properties found very close to the range of common soils. Furthermore, the fly ash-based bricks were prepared by the same sample of class F fly ash and the results of compressive strength similar to that of Standard Clay Brick Grade 1 available in the local market of India.

Keywords : fly ash, class F, class C, chemical, physical, SEM, EDS
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