

Chemical Activation of Low Calcium Fly Ash Part II: Effect of Mineralogical Composition on Alkali Activation

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ABSTRACT:

The influence of mineralogical and chemical compositions of fly ashes on the activation of sodium hydroxide were studied using the three low calcium fly ashes and one bottom ash with different mineralogical and chemical compositions. Low and high sodium hydroxide concentrations were used for the preparation of cement-fly ash mixture. Compressive strength, X-ray diffraction, SEM and hydration calorimetry characterization techniques were used to understand what physical and chemical factors responsible for the effective sodium hydroxide activation.