

The Influence of Zeolitic Spent Refinery Admixture on the Rheological and Technological Properties of Steel Fiber Reinforced Self- Compacting Concrete

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Abstract : By planning this experimental work to investigate the effect of zeolitic waste on rheological and technological properties of self-compacting fiber reinforced concrete, we had an intention to draw attention to the environmental factor. Large amount of zeolitic waste, as a secondary raw materials are not in use properly and large amount of it is collected without a clear view of it's usage in future. The principal aim of this work is to assure, that zeolitic waste admixture takes positive effect to the self-compacting fiber reinforced concrete mixes stability, flowability and other properties by using the experimental research methods. In addition to that a research on cement and zeolitic waste mortars were implemented to clarify the effect of zeolitic waste on properties of cement paste and stone. Primary studies indicates that zeolitic waste characterizes clear pozzolanic behavior, do not deteriorate and in some cases ensure positive rheological and mechanical characteristics of self-compacting concrete mixes.

Keywords : self compacting concrete, steel fiber reinforced concrete, zeolitic waste, rheological, properties of concrete, slump flow

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