Water absorption of superabsorbent polymers in a cementitious environment

This paper focuses on the water absorption of superabsorbent polymers in a cementitious environment. The paper discusses different techniques to measure the water absorption capacity, and in particular it describes a technique which enables a simple and quick estimation of the water absorption capacity in a cementitious environment. The challenges met in defining the concept of water absorption capacity are treated, and the appropriateness of different types of superabsorbent polymers is also briefly dealt with. The concept “water absorption capacity” and its measurement seem straightforwardly simple, but a closer examination of the topic discloses many, significant difficulties. However, given proper cautiousness it is possible both to quickly estimate the water absorption capacity through a simple measurement as well as to examine how it will be influenced by different factors.

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