

Mechanical Properties of Hybrid Cement Based Mortars Containing Two Biopolymers

Authors : Z. Abdollahnejad, M. Kheradmand, F. Pacheco-Torgal

Abstract : The use of bio-based admixtures on construction materials is a recent trend that is gaining momentum. However, to our knowledge, no studies have been reported concerning the use of biopolymers on hybrid cement based mortars. This paper reports experimental results regarding the study of the influence of mix design of 43 hybrid cement mortars containing two different biopolymers on its mechanical performance. The results show that the use of the biopolymer carrageenan is much more effective than the biopolymer xanthan concerning the increase in compressive strength. An optimum biopolymer content was found.

Keywords : waste reuse, fly ash, waste glass, hybrid cement, biopolymers, mechanical strength

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