

Light Weight Mortars Produced from Recycled Foam

Authors : Siwat Kamonkunanon

Abstract : This paper presents results of an experimental study on the use of recycled foam with cement-based mixtures to produce light weight mortar. Several mortar grades were obtained by mixing cement with different amounts of recycled foam, aggregate and water. The physical and mechanical properties of the samples such as density, thermal conductivity, thermal resistivity and compressive strength were investigated. Results show that an increase in the amount of recycled foam affects the mortar, decreasing its density and mechanical properties while increasing its workability, permeability, and occluded air content. These results confirm that mortar produced with recycled foam is comparable to light weight mortar made with traditional materials.

Keywords : light weight, mortars, recycled foam, civil engineering

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