

Durability study of stabilized earth concrete under both laboratory and climatic conditions exposure

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Abstract

The strength and durability of the earth can be improved considerably by the addition of different stabilizers. In this work, four stabilizers have been used: cement, lime, cement plus lime and cement plus resin and then evaluated by various laboratory tests as well as in real climatic conditions. In general, it has been noted that all treated walls showed no signs of deterioration after 4 years exposure in real climatic conditions even though the laboratory test conditions are more severe compared to the natural climatic conditions of the region of Biskra where this present work has been carried out. Among the 4 stabilizers tested, the cement plus resin showed the best durability behavior.

Keywords Earth; Stabilizers; Laboratory durability tests; Climatic conditions exposure.

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