

Effect of Drying on the Concrete Structures

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Abstract : The drying of hydraulics materials is unavoidable and conducted to important spontaneous deformations. In this study, we show that it is possible to describe the drying shrinkage of the high-performance concrete by a simple expression. A multiple regression model was developed for the prediction of the drying shrinkage of the high-performance concrete. The assessment of the proposed model has been done by a set of statistical tests. The model developed takes in consideration the main parameters of confection and conservation. There was a very good agreement between drying shrinkage predicted by the multiple regression model and experimental results. The developed model adjusts easily to all hydraulic concrete types.

Keywords : hydraulic concretes, drying, shrinkage, prediction, modeling

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