

Titre :

Study of the compression resistance of local concrets

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Résumé :

The standards require for all new realizations in the construction industry the formulation of a concrete responding to strength classes. The work presented in this article lies within this scope and relates to the study of the influence of the quality of concrete on compressive strength characteristic. The study included among these factors, the quality of cement, W/C, the granulometry, maximum size and the shape of the aggregates as well as the fineness modulus of sand. To do this, an experimental program was canied out on more than 400 standard cylinders, using local materials, namely: cernent and aggregates. The mix of produced concrete was done according to the method of Dreux-Gorisse and curing of the specimens were done in the air and in a moist atmosphere. The identification of the physical and mechanical characteristics of the aggregates was related mainly to the density, the cleanliness, the hardness, the shape, the granulometry and the absorption of water. Test results revealed that investigated concrete using aggregates in their natural state (without cleaning them) offered satisfactory resistances.

Mots Clés :

compression, concrete, local materials, norms, quarry, statistics, strength,

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