

La porosité ouverte du béton d'enrobage: corrélation entre la résistance à la compression et l'absorption initiale

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Abstract

This experimental work was aimed to characterize the porosity of the concrete cover zone using the capillary absorption test, and establish the links between the open porosity characterized by the initial absorption and compressive strength. The results allow us to highlight the effects of the water/cement ratio and moist curing on porosity. Indeed, porosity increases with the water/cement ratio and the growth rate decreases with the duration of moist curing. Through the results obtained, the theoretical relationships that link the compressive strength at 28 days and the initial absorption of concrete can be deduced.

Keywords : cover concrete, water/cement ratio, humid curing, compressive strength, open porosity, initial absorption.

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