
Early Judgment of Soil-Cement Strength for the Pile Shaft Circumference by the Accelerated Curing Method

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For bored precast concrete piles that have high bearing capacity, it is necessary to obtain the required strength of the soil-cement, which is constructed in the excavated hole by mixing the cement slurry with the in-situ soil. Generally, in many construction methods of bored precast concrete pile, quality control of a pile-tip bulb has been performed by the unconfined compressive strength test of the solidity of cement slurry that was obtained from a mixing plant (i.e., soil-cement strengths have not been controlled). In the future, performing substantial quality control by soil-cement strength is expected.

However, measuring soil-cement strength 28 days after construction is too late as a quality control method, especially in the case where the number of piles is small and when the construction period is short. In this study, early judgment of soil-cement strength by accelerated curing tests using a warm-water curing tank was performed. This report mentioned the above test results. The subject of the test is soil-cement obtained from the pile shaft circumference of in-situ constructed pile.