European micropile design and application for maximum results

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With the execution of renovation projects, it is often desired to redirect forces from the structures to deeper layers with a higher bearing capacity. This head lead to a variety of pile systems that combine the possibility of transferring the load with the practicle application within a existing building or structure. To be able to determine the characteristics of the pile (from a design point of view), load test are often conducted to identify pile behaviour. After conducting a sufficient number of test, pile factors can be determined, making pile tests less urgent or even obsolete.

This paper deals with a series of test performed on micropiles in Germany and in the Netherlands. The paper explains the Dutch regulations on tension piles and anchors (NEN 6743, CUR 2001-4 and CUR 166 and there typical differences with other European methods) and shows how different factors for the pile bearing capacity are determined. The results of several Dutch micropiles tests are compared with the results of similar German tests, which results in a more general design guideline for micropiles.





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