DESCRIPTION

This handbook provides a complete and detailed overview of piling systems and their application. The design and construction of piled foundations is based on Eurocode 7 and DIN 1054 edition 2010 as well as the European construction codes DIN EN 1536 (Bored piles), DIN EN 12699 (Displacement piles) and DIN EN 14199 (Micropiles). These recommendations also deal with

- categorisation of piling systems,

- actions on piles from structural loading, negative skin friction and side pressure,

- pile resistances from static and dynamic pile test loading as well as extensive tables with the pile load-bearing capacity of nearly all piling systems based on values from practical experience,

- pile groups,

- performance of static and dynamic test loading and integrity tests,

- load-bearing behaviour and verifications for piles under cyclical, dynamic and impact actions

- quality assurance for construction.

An appendix with numerous calculation examples completes the work.

As part of the approval procedure for offshore wind energy structures, the Federal Office for Shipping and Hydrography (BSH) demands verifications according to the new Chapter 13 ("Load-bearing behaviour and verifications for piles under cyclical, dynamical
and impact actions") of the EA Pfahle (the recommendations of the Piling working group - 2nd edition), which deals with external pile resistance for the foundations of offshore wind energy structures and the types of verifications to be provided under cyclical actions.

The publication of the EA-Pfahle recommendations by the Piling working group of the German Society for Geotechnics (DGGT), which works with the same members as the piling standards committee NA 00-05-07, is intended to provide assistance for engineers active in the design, calculation and construction of piled foundations. The recommendations can thus be considered as rules of the technology and as a supplement to the available codes and standards.

 ABOUT THE AUTHOR

The "Piling" working group AK 2.1 of the German Society for Geotechnics (DGGT) consists of about 20 experts from science, industry, construction administration and client organisations and has the same members as the standards committee "Piling" of the NABau.

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