

1

Declaration

on development of the analytical method for evaluating the baseplate stiffness

The analytical method comparing the calculated highest anchor tension force of rigid and elastic baseplates for evaluating the required baseplate stiffness in anchor design was first developed by me in 2014 [1]. This method was proposed by me in 2016 to supplement the fib Design Guide [2] and has been in use in the manufacturer-independent anchor design software "Anchor Profi" since March 2016 [3] and published in 3 papers [4, 5, 6] since 2017.

I welcome the increasing use of this evaluation method by anchor manufacturers in their anchor design software and by researchers in their baseplate stiffness assessment papers. However, it is unfortunate that some anchor manufacturers and researchers have not cited a source in their publications when using this method.

I hereby declare that the above-mentioned analytical method was first developed and published by me through in-house research for practical baseplate design. All rights are reserved regarding the integrity of scientific practice.

28.09.2023, Dr.-Ing. Longfei Li 05.01.2024 revised

References

- [1] Li, L.: General method for calculating the anchor tension loads on a base plate, fib TG 2.9 WP8 presentation, Paris, September 2014 https://www.anchorprofi.de/Doku/fibTG29WP8-PresentationBasePlate2014.pdf
- [2] Li, L.: Text proposal to supplement in fib design guide section 4.3.1.2 Tension loads on anchors, February 2016 https://www.anchorprofi.de/Doku/Proposal-fibDesignGuideTensionLoadsOnAnchors2016.pdf
- [3] Dr. Li Anchor Profi GmbH: Required thickness for flexurally rigid base plate, Background and Design Proposal in the software Anchor Profi 2.5.0, Commentary on Anchor Profi 2.5.0, March 2016, https://www.anchorprofi.de/Doku/RequiredThicknessRigidPlate.pdf
- [4] Li, L.: Required Thickness of Flexurally Rigid Baseplate for Anchor Fastenings, proceedings of fib Symposium Maastricht 2017, High Tech Concrete: Where Technology and Engineering Meet, DOI 10.1007/978-3-319-59471-2 109, © Springer International Publishing AG 2018, https://www.springerprofessional.de/en/required-thickness-of-flexurally-rigid-baseplate-foranchor-fast/12349244
- [5] Li, L.: Bemessung von Befestigungen mit elastischen Ankerplatten unter Zug- und Biegebeanspruchung, Stahlbau 88, Heft 8, S. 762-774, © Ernst & Sohn Verlag 2019, https://onlinelibrary.wiley.com/doi/abs/10.1002/stab.201900001
- [6] Li, L.: Baseplate Rigidity and Anchorage Design, Volume 7, Issue 3, SCIREA Journal of Civil Engineering and Building Construction 2022, http://dx.doi.org/10.54647/cebc56110