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Titolo	Strengthening of concrete structures with adhesive bonded reinforcement : design and dimensioning of CFRP laminates and steel plates / / Konrad Zilch, Roland Niedermeier, Wolfgang Finckh ; editors, Konrad Bergmeister, Frank Fingerloos, H. C. Mult ; coverdesign, Hans Baltzer
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Nota di contenuto	Strengthening of Concrete Structures with Adhesively Bonded Reinforcement: Design and Dimensioning of CFRP Laminates and Steel Plates; Contents; Editorial; 1 Introduction; 1.1 The reason behind this book; 1.2 Strengthening with adhesively bonded reinforcement; 2 DAfStb guideline; 2.1 The reasons for drawing up a guideline; 2.2 Preparatory work; 2.3 Work on the guideline; 2.4 The structure and content of the guideline; 2.4.1 General; 2.4.2 Design and detailing; 2.4.3 Products and systems; 2.4.4 Execution; 2.4.5 Planning; 2.5 Safety concept; 2.6 Applications; 2.6.1 Member to be strengthened 2.6.2 Strengthening systems2.6.3 Ambient conditions; 2.6.4 Fire protection; 2.7 Relationship with other regulations; 2.8 Documents and assistance for practical applications; 3 Design of strengthening measures with externally bonded CFRP strips; 3.1 Principles; 3.2 Verification of flexural strength; 3.3 Bond analysis; 3.3.1 Principles; 3.3.2 Simplified method; 3.3.3 More accurate method; 3.3.3.1 General; 3.3.3.2 Determining the crack spacing; 3.3.3.3 Accurate analysis of

concrete element between cracks; 3.3.3.4 Simplified analysis of element between cracks; 3.3.4 End anchorage analysis
3.3.4.1 General3.3.4.2 End anchorage analysis at flexural crack nearest to point of contraflexure; 3.3.4.3 Anchorage analysis at an arbitrary concrete element between cracks; 3.3.4.4 End anchorage analysis with shear wrapping; 3.4 Shear force analyses; 3.4.1 Shear strength; 3.4.2 Shear strengthening; 3.4.2.1 Full wrapping in steel; 3.4.2.2 Full wrapping in fibre-reinforced material; 3.4.2.3 U-wrapping; 3.4.3 End strap to prevent concrete cover separation failure; 3.5 Fatigue analysis; 3.6 Analyses for the serviceability limit state; 3.7 Detailing; 3.7.1 Strip spacing
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6.1.3 Construction materials

Sommario/riassunto

Selected chapters from the German concrete yearbook are now being published in the new English ""Beton-Kalender Series"" for the benefit of an international audience. Since it was founded in 1906, the Ernst & Sohn ""Beton-Kalender"" has been supporting developments in reinforced and prestressed concrete.