

1. Record Nr.	UNINA9911049201703321
Autore	Lesiuk Grzegorz
Titolo	Composite Rebars for Reinforced Concrete Structures : Manufacturing, Testing and Applications // edited by Grzegorz Lesiuk, José A. F. O. Correia, Shun-Peng Zhu, Hermes Carvalho, Kayode J. Olaleye
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2026
ISBN	3-031-96292-3
Edizione	[1st ed. 2026.]
Descrizione fisica	1 online resource (191 pages)
Collana	Structural Integrity, , 2522-5618 ; ; 34
Altri autori (Persone)	Lesiuk
Disciplina	620.118
Soggetti	Composite materials Concrete Production engineering Composites Mechanical Process Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. General overview of FRP rebars technology and applications. 2. Mechanical Properties of FRP bars -- 3. Damage prediction models in FRP structures -- 4. Resistance to harsh environment -- 5. Bond behavior of FRP rebars embedded in concrete -- 6. Flexural behavior of concrete beams reinforced with FRP rebars -- 7. Dynamic and cyclic performance of the FRP materials.
Sommario/riassunto	This book explores the use of composite rebars—especially Fiber Reinforced Polymers (FRPs)—as a modern structural solution in concrete construction, offering a comprehensive analysis of their mechanical behavior, durability, and performance. It presents the latest research on material properties, concrete compatibility, and real-world applications in structures such as tunnels, tanks, and bridges. Emphasizing the benefits of FRPs, including corrosion resistance, high tensile strength, and lightweight design, the book provides valuable insights into the future of reinforced concrete engineering.