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Nota di contenuto	Contents and Preliminary Pages -- Fibre-reinforced concrete (FRC) -- Ultra-high-performance fibre-reinforced concrete (UHPFRC) -- Geopolymer cement-free concrete -- Critical evaluation and main considerations for the selection of structural concrete types and selected case studies -- Conclusions -- Index.
Sommario/riassunto	Fibre-reinforced Concretes for High-performance Structures focuses on fibre-reinforced concrete, ultra-high-performance fibre-reinforced concrete and geopolymer concrete and their use in the construction of structures. It deals with recent developments in the area of concrete types for enhanced structural performance and sustainability. Designed as a guide to filling the knowledge gap between research and use in industry, this book presents key information about the development, performance and design of three main materials and critically analyses them to highlight the key mechanical properties and durability characteristics. Design aspects are covered using both research outcomes and available guidelines/code provisions. Critical evaluation of the mechanical properties of all the examined materials are

presented in addition to environmental and economic considerations. Selected case studies are also presented for the examined concrete types in a consistent form, focusing on the material properties and on the construction process. Finally, recent findings on the application of the examined materials for the structural strengthening of existing structures are presented and the efficiency of the use of the examined materials is highlighted. This book considers each material in turn focusing on * material selection and design of concrete mixes * mechanical performance and durability * design of structural elements using these materials * selected case studies. This title is an essential read for engineers and concrete specialists, from students and technicians to practising engineers and researchers, and those looking for sustainable solutions to civil engineering projects involving the selection of specific concretes. Dr Andreas Lampropoulos is a Principal Lecturer in Civil Engineering at the University of Brighton, UK.
