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Titolo	A Framework for Durability Design with Strain-Hardening Cement-Based Composites (SHCC) : State-of-the-Art Report of the RILEM Technical Committee 240-FDS / / edited by Gideon P.A.G. van Zijl, Volker Slowik
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Nota di contenuto	Preface -- Chapter 1 Introduction: Crack Distribution and Durability of SHCC, by Gideon van Zijl, Billy Boshoff, Christian Wagner and Volker Slowik -- Chapter 2 Transfer of Fluids, Gases and Ions in and Through Cracked and Uncracked Composites, by Christian Wagner, Volker Slowik, Gideon van Zijl, Billy Boshoff, Suvash Paul, Viktor Mechtcherine and Koichi Kobayashi -- Chapter 3 Fibre Durability, by Flavio Silva, Alva Peled, Bartosz Zukowski and Romildo Toledo Filho -- Chapter 4 Chemical Processes, by Erik Schlangen, Gideon van Zijl and Petr Kabele -- Chapter 5 Influence of Low Temperatures, by Koichi Kobayashi and Folker Wittmann -- Chapter 6 Influence of Elevated Temperatures, by Flavio Silva, Barzin Mobasher, Alva Peled, Dimas Rambo and Romildo Toledo Filho -- Chapter 7 Abrasion, by Volker Slowik, Steffen Müller, Christian Wagner and Viktor Mechtcherine -- Chapter 8 Behaviour of Bonded SHCC Overlay Systems, by Volker Slowik, Mladena Lukovi, Christian Wagner and Gideon van Zijl -- Chapter 9 Reinforcing Bar

Corrosion, by Koichi Kobayashi, Suvash Paul and Gideon van Zijl -- Chapter 10 Durability and Service Life Design Concepts for Structures and (Non-)Structural Members made of or Strengthened/Repaired with SHCC, by Viktor Mechtcherine, Frank Altmann and Gideon van Zijl. .

Sommario/riassunto

This book captures the state of the art of the durability of fibre-reinforced strain-hardening cement-based composites (SHCC) and the durability of structures or structural elements manufactured in full or in part with this class of modern construction materials. Highlights include: - Reflection on durability performance of existing applications in patch repair, a water reservoir and highway bridges. - Guidelines for tensile testing towards durability assessment of cracked SHCC. - New crack pattern related ingress rate indices for water and chloride into cracked SHCC. - The influence of low and high temperatures on SHCC durability performance. - The mechanism of crack control reducing ASR and corrosion rate, and results on chloride-induced corrosion of embedded steel reinforcement. - Self-healing of cracks in SHCC. - A conceptual durability design framework for SHCC and R/SHCC structures and members. .

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