1. Record Nr. UNINA9910462512503321

Titolo	Polymers in concrete [[electronic resource] /] / edited by Jose Aguiar and Lech Czarnecki
Pubbl/distr/stampa	Stafa-Zurich, Switzerland ; ; Enfield, N.H., : Trans Tech, c2011
ISBN	3-03813-492-9
Descrizione fisica	1 online resource (240 p.)
Collana	Key engineering materials, , 1013-9826 ; ; v. 466
Altri autori (Persone)	AguiarJ (Jose) CzarneckiLech
Disciplina	620.136
Soggetti	Polymer-impregnated concrete Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Special topic volume with invited peer reviewed papers only."
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Polymers in Concrete; Preface; Table of Contents; Concrete-Polymer Composites - The Past, Present and Future; Seven Well Known Fundamental Flaws against Innovations in Construction Chemistry; Microstructural Analysis of Paste and Interfacial Transition Zone in Cement Mortars Modified with Water-Soluble Polymers; Shrinkage Properties of Polymer-Modified Cement Mortars (PCM); The Effect of Latex and Chitosan Biopolymer on Concrete Properties and Performance; Evaluation of the Hydration of Portland Cement Modified with Polyvinyl Alcohol and Nano Clay Hydration of Cement in the Presence of SBR Dispersion and PowderEffect of Epoxy Resin Addition on the Moisture Sensitivity of Macro Defect Free Polymer-Cement Composites; Characterization of Poly(vinyl Alcohol) Fiber Reinforced Organic Aggregate Cementitious Materials; Effect of Types and Contents of Polymer Resin on Spalling Prevention of High-Strength Concrete Subjected to Fire; Influence of Environmental Temperatures on the Performance of Polymeric Stabilising Agent in Fresh Cementitious Materials; Chemical Shrinkage of Pastes Made with Shrinkage Reducing Admixtures Mechanical Behaviour and Thermal Conductivity of Mortars with Waste Plastic ParticlesRealization of TRC Facades with Impregnated AR-Glass Textiles; Development of an Ultra-Lightweight Thin Film Polymer Modified Concrete Material; Polymer-Modified Mortars for Surface

Treatment with the Utilization of Waste Polystyrene; Polymer-Modified Mortars for Corrosion Protection at Offshore Wind Energy Converters; Microstructural Analysis during the Hydration of Cement-in-Polymer Coatings; Innovative Coating Technology for Textile Reinforcements of Concrete Applications
Advanced Coatings to Improve the Durability in Continuous Glass-Fibre Reinforced ConcreteEffect of Concrete Hydrophobation against Chloride Penetration; Optimization of Polymer-Cement Coating Composition Using Material Model; Nucleation on Polymer Nanofibers and their Controllable Conversion to Protective Layers: Preliminary Theoretical Study; Advanced Seismic Countermeasures for Concrete Bridges by Using Polymer in Japan; Composition of Concrete Surfaces after Demoulding and Coating: Comparative Study by XPS, FTIR and Raman Spectroscopies
Tests of Flexible Polymer Joints Repairing of Concrete Pavements and of Polymer Modified Concretes Influenced by High DeformationsKeywords Index; Authors Index

Sommario/riassunto

The field of ""polymers in concrete"" is rather well consolidated within the construction industry, and its future will be one of benefiting fully from the synergy between the organic and mineral materials. Concrete-polymer composites (C-PC) exhibit excellent adhesion strength and durability in aggressive environments and the good performance of these materials makes innovative applications possible; including new technologies for restoring and renovating buildings. The authors here try to answer the question of what is essential to ensuring better concrete: better for a given project, better