Record Nr. UNINA9910299712503321 Autore Panasyuk V.V Titolo Injection technologies for the repair of damaged concrete structures // V.V. Panasyuk, V.I. Marukha, V.P. Sylovanyuk Dordrecht [Netherlands]:,: Springer,, 2014 Pubbl/distr/stampa 94-007-7908-9 **ISBN** Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (xi, 230 pages): illustrations (some color) Collana Gale eBooks Disciplina 624.18340288 671.3/7 671.37 Soggetti Concrete construction - Maintenance and repair Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto 1 Introduction.- 2 General characteristics of concretes and reinforced concretes.- 3 Predominant damages and injuries in reinforced concrete structures arising during use.- 4 Implementation of injection technologies for the renewal and restoration of serviceability of concrete or reinforced concrete structures.- 5 Injection materials: Technological, mechanical, and service characteristics.- 6 Serviceability estimations for elements of building structures.- 7 Methods and devices for technical diagnostic of long-term concrete structures -- 8 Implementation of injection technologies in the renewal and restoration of serviceability of concrete and reinforced concrete structures --Appendix. . Sommario/riassunto This book analyzes the most important achievements in science and engineering practice concerning operational factors that cause damage to concrete and reinforced concrete structures. It includes methods for assessing their strength and service life, especially those that are based on modern concepts of the fracture mechanics of materials. It also includes basic approaches to the prediction of the remaining service life for long-term operational structures. Much attention is paid to injection technologies for restoring the serviceability of damaged concrete and reinforced concrete structures. In particular, technologies for remedying holes, cracks, corrosion

damages etc. The books contains sample cases in which the above

technologies have been used to restore structural integrity and extend the reliable service life of concrete and reinforced concrete constructions, especially NPPs, underground railways, bridges, seaports and historical relics.