

1. Record Nr.	UNINA9910523792503321
Autore	Miltiadou-Fezans Androniki
Titolo	Mix-Design and Application of Hydraulic Grouts for Masonry Strengthening / / by Androniki Miltiadou-Fezans, Theodosios P. Tassios
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-030-85965-7
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (300 pages)
Collana	Springer Tracts in Civil Engineering, , 2366-2603
Disciplina	691 666.94
Soggetti	Building materials Cultural property Buildings - Repair and reconstruction Buildings - Maintenance Building Materials Cultural Heritage Building Repair and Maintenance
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Penetrability -- Fluidity, -- Stability -- Critical value Wnom -- Strength -- Durability -- Optimization of grout performances -- Practical guidelines for the execution of grouting.
Sommario/riassunto	This book provides guidance for the rational design and application of hydraulic grouts, based on a series of specific data (type of masonry, voids' width, targeted strength and durability level, available materials, etc.). To this end, the basic characteristics of a grout, i.e. its injectability (penetrability, fluidity and stability), its strength and durability, are taken into account by means of rational models and quantified expressions of all grout-design parameters. Thus, a holistic, rational mix design methodology for optimization of grout composition is given, permitting the preliminary design of grouts, without having to resort to multiple tests in advance. Moreover, detailed practical guidelines for grouting application and quality control, based on real

case studies, are also included. The book attempts to rationalize the entire procedure of this poly-parametric decision-making, keeping however in mind the need for practical engineering solutions.
