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Nota di contenuto	Front Cover; Concrete Portable Handbook; Copyright; Table of Contents; Acknowledgments; About the Author; Introduction; Chapter1. Basic Information; Paperwork; Inspection; Special Considerations; Chapter 2. Concrete Materials; Aggregates; Water; Steel Reinforcement; Admixtures; Storage of Materials; Chapter3. Durability and Protection; Special Exposure Conditions; Corrosion Protection; Chapter4. Mixing and Placing Concrete; Average Compressive Strength; Site Preparation; Mixing Concrete; Depositing Concrete; Curing; Weather Conditions; Chapter 5. Concrete Formwork; Form Removal Embedded ItemsConstruction Joints; Pre-Formed Concrete Products; Chapter 6. Reinforcement; Standard Hooks; Condition of Reinforcement Materials; Reinforcement Spacing; Bundling Bars; How Much Coverage Is Needed?; Column Support; Some Spiral Facts; Ties; Structural Integrity; Chapter 7. General Design Consideration; Analysis; Length of Spans; Columns; Live Load Assumptions; T-Beam Construction; Joist Construction; Finished Flooring; Chapter8. Requirements for Strength and Serviceability; Design Strength; Complicated Calculations; Local Practices; Common Sense Chapter9. Inspecting In-Place ConcretePlans and Specs; Judging the Site; Quality of Installation; Cracked Concrete; Crack Activity; Crack Occurrence; Disintegration; Scaling; Dusting; Distortion; Erosion; Seal

Failure; Special Cases of Spalling; Delamination; Crack Surveys; Sizing Cracks; Mapping; Joint Inspections; Core Drilling; Underwater Concrete; High-Resolution Acoustic Mapping System; Side Scanner; Other Means of Underwater Testing; Laboratory Work; Chemical Analysis; Physical Analysis; Nondestructive Testing; Other Considerations; Chapter10. Concrete Failure; Unintentional Loads
Chemical ReactionsCorrosion; Freezing and Thawing; Settlement and Movement; Shrinkage; Fluctuations in Temperature; Chapter11. Concrete Repair Preparation; Compressive Strength; Modulus of Elasticity; Thermal Expansion; Bonding; Drying Shrinkage; Creep; Permeability; Planning a Repair; Manufacturer's Data; Chapter12. Removal and Repair; Removal Methods; Blasting; Crushing; Cutting; Impacting Methods; Boom-Mounted Concrete Breakers; Spring-Action Hammers; Hand-Held Impact Breakers; Hydromilling; Rotary-Head Milling; Pre-Splitting; Chemical Agents; Piston-Jack Splitters; Plug-Feather Splitter
Prep WorkReinforcing Steel; Anchors; Chapter13. Rehabilitation Work; Prestressing Steel; Autogenous Healing; Conventional Placement; Crack Arrest Techniques; Drilling and Plugging; Drypacking; Fiber-Reinforced Concrete; Flexible Sealing; Gravity Soak; Chemical Grouting; Hydraulic-Cement Grouting; High-Strength Concrete; Jacketing; Judicious Neglect; Polymer Overlays; Polymer Coatings; Polymer Concrete; Polymer Impregnation; Polymer Injection; Pre-Cast Concrete; Preplaced-Aggregate Concrete; Rapid-Hardening Cement; Roller-Compacted Concrete; Routing and Sealing; Shotcrete
Shrinkage-Compensating Concrete

Sommario/riassunto

Whether or not, you are on the job site or back in the office, this book will help you to avoid mistakes, code violations, and wasted time and money. The book's four part treatment begins with constituent materials followed by self contained parts on Concrete Properties, Processes, and Concrete Repair and Rehabilitation. Designed to be an ""all in one"" reference, the author includes a wealth information for the most popular types of testing. This includes: Analysis of Fresh Concrete; Testing Machines; Accelerated Testing Methods; Analysis of Hardened Concrete and Mortar; Core Sampl