SI International System of Units

An ACI Standard

Repair of Concrete in Buildings—Specification

Reported by ACI Committee 563

ACI SPEC-563-25



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Repair of Concrete in Buildings—Specification

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(SI Units)

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This is a Reference Specification that the Architect/Engineer can apply to any construction repair and rehabilitation project involving structural concrete by citing it in the Project Specifications. Mandatory requirements and optional requirements checklists are provided to assist the Architect/Engineer in supplementing the provisions of this Specification, as required or needed, by designating or specifying individual project requirements. The first section covers general construction requirements for repair Work. The second section covers shoring and bracing of the structure or member to be repaired, and addresses sequencing of repair Work as the structure is unloaded and reloaded. The third section covers concrete removal and preparation of the concrete substrate for repair and defines common equipment and methods. The next five sections cover materials and proportioning of concrete; proprietary cementitious and polymer repair materials; reinforcement; production, placing, finishing, and curing of repair materials; formwork performance criteria and construction; treatment of joints; embedded items; repair of surface defects; mockups, and finishing of formed and unformed surfaces. New sections included in this edition of the Specification includes waterproofing cracks by chemical grout injection, architectural concrete repair, structural precast concrete repair, unbonded post-tensioned concrete repair, overlays, protective membranes, and cathodic protection by galvanic anodes. Provisions governing testing, evaluation, and acceptance of repair materials as well as acceptance of the repair Work are included. Sections 16, 17 and 18 incorporate by reference other ACI specifications into this ACI Standard: ACI SPEC-503.7 for crack repair by epoxy injection, ACI SPEC-506.2 for shotcrete, and ACI SPEC-440.12 for wet-layup FRP.

Keywords: bracing; cold weather; compressive strength; consolidation; curing; durability; epoxy injection; finish; formwork; grouting; hot weather; inspection; joints; mockups; placing; precast; rehabilitation; repair; reshoring; shoring; shotcrete; slab; steel reinforcement; surface preparation; testing; tolerance; welded wire.

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