

ACI 503.4-92(03)

**Standard Specification for Repairing
Concrete with Epoxy Mortars (ACI 503.4-92)**

An ACI Standard

Reported by ACI Committee 503



American Concrete Institute®



February 2014 printing

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Epoxy Resins

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ISBN: 978-0-87031-875-7

Standard Specification for Repairing Concrete with Epoxy Mortars*

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This specification describes the work of repairing defects in hardened portland cement concrete with a sand-filled mortar using an adhesive binder such as defined in ASTM C 881. It includes controls for adhesive labeling, storage, handling, mixing and application, surface evaluation and preparation, as well as inspection and quality control.

Keywords: bond (concrete-to-concrete); concrete construction; epoxy resins; hardened concrete; mortars (material); quality control; repairs; resurfacing; specifications; standards.

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Reference to this document shall not be made in contract documents. If items found in this document are desired by the Architect/Engineer to be a part of the contract documents, they shall be restated in mandatory language for incorporation by the Architect/Engineer.

FOREWORD

This foreword is included for explanatory purposes only; it does not form part of Standard Specification ACI 503.4.

Standard Specification 503.4 is a reference standard which the Architect/Engineer may cite in the project specification(s) for any building project, together with supplementary requirements for the specific project.

This specification is written in the section and three-part format of the Construction Specifications Institute, but with the numbering system modified to ACI requirements. The language is generally imperative and terse.

A specification guide and checklist are included as a preface to, but not forming part of, Standard Specification ACI 503.4. The purpose of this guide and checklist is to assist the Architect/Engineers' designer(s) and specifier(s) to properly choose and specify the necessary supplementary requirements for the project specifications.

*Adopted as a standard of the American Concrete Institute effective June 1979, in accordance with the Institute's standardization procedure. It was revised according to the expedited procedure effective October 1986 and March 1992.

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SG1-Standard Specification ACI 503.4 is intended to be used essentially in its entirety, by citation in the project specification, to cover all usual requirements for repairing concrete with epoxy mortars. Individual sections, parts, and articles should not be copied into project specifications since taking them out of context may change their meanings.

SG2-However, adjustments to the needs of a particular project shall be made by the Architect/Engineer's designers and specifiers by reviewing each of the items indicated in this specification guide and checklist and then including their decisions on each as mandatory requirements in the project specification.

SG3-These mandatory requirements shall designate specific qualities, procedures, materials, and performance criteria for which alternatives are permitted or for which provision is not made in Standard Specification ACI 503.4. Or exceptions shall be taken in Standard Specification ACI 503.4 if required.

SG4-A statement such as the following will serve to make Standard Specification ACI 503.4 an official part of the contract requirements:

Repairing concrete with epoxy mortars shall conform to all requirements of "Standard Specification for Repairing Concrete with Epoxy Mortars (ACI 503.4)," published by the American Concrete Institute, Detroit, Mich., except as modified by the requirements of this project specification.

SG5-The specification checklist that follows is addressed to each item of ACI 503.4 that requires the designer/specifier to make a choice where alternates are indicated, or to add provisions where they are not indicated in ACI 503.4, or to take exceptions to ACI 503.4. The checklist consists of one column identifying sections, parts, and articles of ACI 503.4, and a second column of notes to the designer/specifier to indicate the action required of them.

SPECIFICATION CHECKLIST

Section/Part/Article of ACI 503.4	Notes to the Designer/Specifier
Section 1-General requirements	
1.1 Scope	Indicate specific scope.
1.4 Reference standards	Review applicability of cited references and take exceptions if required.
Section 2-Materials and application	
2.1.2 Submittals	To whom sent?