

An ACI Standard

Specification for Polished Concrete Slab Finishes

Reported by Joint ACI-ASCC Committee 310

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Specification for Polished Concrete Slab Finishes

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American Concrete Institute
38800 Country Club Drive
Farmington Hills, MI 48331
Phone: +1.248.848.3700
Fax: +1.248.848.3701

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Reported by Joint ACI-ASCC Committee 310

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Harry P. Moats

Mike Murray

This is a Reference Specification that the Architect/Engineer can apply to any construction project involving polished concrete slab finishes by citing it in the Project Specifications. A mandatory requirements checklist and an optional requirements checklist 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 of this Specification covers general requirements for polished concrete slab finishes. The second section covers requirements for products and equipment, and the third section covers construction requirements. Provisions governing testing, evaluation, and acceptance of polished concrete slab finishes are included. This Specification for polished concrete slab finishes is applicable to both slabs-on-ground and suspended slabs.

Keywords: abrasive tooling; distinctness of image (DOI); edge polishing; grinding; haze; honing; mockup; polished concrete; polishing process; slab finish; specular gloss; surface defects.

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1.1.1 This Specification covers construction of polished concrete slab finishes.

1.1.2 This Specification is incorporated by Contract Documents and provides requirements for Contractor.

1.1.3 This Specification governs for construction within its scope, except project-specific Contract Documents govern if there is a conflict.

1.1.4 *Work not specified*—The following Work is not in the scope of this Specification:

(a) Construction of cast-in-place concrete slab

1.1.5 This Specification governs if there is a conflict with materials and testing standards referenced in this Specification.

1.1.6 Contractor is permitted to submit written alternatives to any provisions in this Specification. Alternates must be approved in writing by Architect/Engineer or Owner's Representative, or both.

1.1.7 Provisions of this Specification that are not applicable to the Work are not valid.

1.1.8 *Units*—Values in this Specification are stated in inch-pound units. A companion specification in SI units is available.

1.1.9 Unless otherwise stated, the inch-pound system of units shall be applicable in ASTM standards referenced in this Specification.

1.1.10 The Notes to Specifiers are not part of this Specification.

1.2—Interpretation

1.2.1 Unless otherwise explicitly stated, this Specification shall be interpreted using the following principles:

1.2.1.1 Interpret this Specification consistent with the plain meaning of the words and terms used.

1.2.1.2 Definitions provided in this Specification govern over the definitions of the same or similar words or terms found elsewhere.

1.2.1.3 Whenever possible, interpret this Specification so that its provisions are in harmony and do not conflict.

1.2.1.4 Headings are part of this Specification and are intended to identify the scope of the provisions or sections that follow. If there is a difference in meaning or implication between the text of a provision and a heading, the meaning of the text governs.

1.2.1.5 Where a provision of this Specification involves two or more items, conditions, requirements, or events connected by the conjunctions “and” or “or,” interpret the conjunction as follows:

1.2.1.5(a) “And” indicates that all the connected items, conditions, requirements, or events apply.

1.2.1.5(b) “Or” indicates that the connected items, conditions, requirements, or events apply singularly.

1.2.1.6 The use of the verbs “may” or “will” indicates that the Specification provision is for information to Contractor.

1.2.1.7 The phrase “as indicated in Contract Documents” means the specifier included the provision requirements in Contract Documents.

1.2.1.8 The phrase “unless otherwise specified” means the specifier may have included an alternative to the default requirement in Contract Documents.

1.2.1.9 The phrase “if specified” means the specifier may have included a requirement in Contract Documents for which there is no default requirement in this Specification.

1.3—Definitions

Please refer to the latest version of ACI Concrete Terminology for a comprehensive list of definitions. Definitions provided herein complement that resource.

abrasive impregnated pad—a pad, resembling a typical floor maintenance burnishing pad, that can contain industrial-grade diamonds and has the capability of refining the concrete surface on a microscopic level.

abrasive tooling—tooling that contains industrial grade abrasives within a bonded matrix (such as metallic, resinous, ceramic) that are attached to rotating heads to refine the concrete substrate.

accepted—determined by Architect/Engineer to be in compliance with Contract Documents.

aggregate exposure—grinding a concrete floor surface with bonded abrasives to achieve a specified class of exposed aggregate.

aggregate exposure class—the surface exposure after grinding and polishing operations based on visual observation of the overall area of the polished floor.

aggregate pop-outs—where either the coarse or fine aggregate becomes dislodged from the matrix of the concrete.

Architect/Engineer—the architect, engineer, architectural firm, or engineering firm developing Contract Documents, or administering the Work under Contract Documents, or both.

Construction Documents—written and graphic documents and specifications prepared or assembled for describing the location, design, materials, and physical characteristics of the elements of a project necessary for obtaining a building permit and construction of the project.

Contract Documents—set of documents that form the basis of a contractual relationship between the Owner and Contractor or design-builder. These documents are defined by the contractual agreement, and can contain contract forms, contract conditions, specifications, drawings, addenda, and contract changes.

Contractor—the person, firm, or entity under contract for the construction of the Work.

crack—separation of concrete into two or more parts produced by breaking or fracturing.