

ACI 311.6-09

**Specification for Ready Mixed Concrete
Testing Services**

An ACI Standard

Reported by ACI Committee 311



American Concrete Institute®



First printing
November 2009

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Specification for Ready Mixed Concrete Testing Services

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ISBN 978-0-87031-351-6

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This Reference Specification covers Testing Agency requirements for field and laboratory testing of ready mixed concrete delivered to the project. It is intended for use by specifiers, architects, engineers, owners, contractors, and other groups interested in monitoring the quality of concrete used in project construction. This Reference Specification can be made applicable to any construction project by citing it in a Contract. The Specifier supplements the provisions of this Reference Specification as needed by specifying individual project requirements in the Contract.

Keywords: air content; laboratory; ready mixed concrete; sampling; slump; specification; technician; temperature; testing; unit weight.

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ACI 311.6-09 was adopted October 6, 2009 and published November 2009.
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(mandatory portion follows)

SECTION 1—GENERAL REQUIREMENTS

1.1—Scope

1.1.1 Work specified—This specification sets the minimum requirements for testing of ready mixed concrete at the project site when specific field-measured properties and laboratory-measured compressive strength are used as a basis for acceptance of concrete as delivered to the site. It includes requirements for making and curing test specimens, performing field and laboratory tests, and qualifying personnel and laboratories performing these tests. Testing services required in this specification shall be completed by a Testing Agency engaged by the Owner. The Testing Agency must be independent from conflicts of interest that may affect objective reporting of the testing services.

1.1.2 Work not specified—This specification does not apply to testing requirements and responsibilities required of the construction Contractor.

1.1.3 Project Documents—The Testing Agency shall provide the tests and reports defined by the Project Specifications supplied by the Owner or Owner's representative.

1.2—Qualifications

1.2.1 The Testing Agency shall submit qualifications of field technicians and laboratory testing technicians, as defined in Sections 1.2.1.1 to 1.2.1.2, to Owner or Owner's representative.

1.2.1.1 Field technician—Technicians conducting field tests of concrete shall be certified as ACI Concrete Field Testing Technician – Grade I, unless otherwise specified.

1.2.1.2 Laboratory technician—Technicians conducting laboratory testing shall be certified as ACI Concrete Laboratory Testing Technician – Level 1 or ACI Concrete Strength Testing Technician, unless otherwise specified.

1.2.2 Testing Agency—The Owner or the Owner's representative shall not delegate these services to the Construction Contractor. The Testing Agency shall meet the requirements of ASTM E329 and be accredited in accordance with the requirements of ASTM C1077. Unless otherwise specified, the Testing Agency shall be accredited by one or more of the following: the AASHTO Accreditation Program (AAP), the National Voluntary Laboratory Accreditation Program (NVLAP), the American Association for Laboratory Accreditation (A2LA), the International Accreditation Service (IAS), the Construction Materials Engineering Council (CMEC), or the Washington Area Council of Engineering Laboratories (WACEL).

1.3—Definitions

accreditation—the act or result of having a Testing Agency's quality procedures, equipment calibration, and personnel reviewed and approved by an independent third-party agency.

certification—the act of having an individual's skills and knowledge of a certain subject tested and verified by an independent third-party agency.

Contract—the professional agreement between the Owner and Testing Agency for provisions of testing services.

Contract Documents—a set of documents supplied by Owner to Contractor as the basis for testing; these documents

contain contract forms, contract conditions, specifications, drawings, addenda, and contract changes.

Contractor—as used in this document, the person, firm, or entity under contract for testing services.

Owner—the corporation, association, partnership, individual, public body, or authority for whom the testing services are performed.

Project Specification—the written document that details requirements for the Work in accordance with service parameters and other prescriptive or performance criteria.

Testing Agency—the firm or entity under contract for providing testing services.

Work—the entire construction or separately identifiable parts thereof required to be furnished as described in the Contract Documents.

1.4—Referenced standards

Standards of ASTM referred to in this specification are listed with serial designation and are part of this specification. The latest edition of the ASTM standard shall be used unless otherwise specified in Contract Documents.

C31	Standard Practice for Making and Curing Concrete Test Specimens in the Field
C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
C138	Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
C172	Standard Practice for Sampling Freshly Mixed Concrete
C173	Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method
C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
C511	Standard Specification for Mixing Rooms, Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the Testing of Hydraulic Cements and Concretes
C1064	Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete
C1077	Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation
E329	Standard Specification for Agencies Engaged in Construction Inspection and/or Testing

These publications may be obtained from:

ASTM International
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1.5—Certification and accreditation organizations

1.5.1 Certification organization—The following certification organization referred to in this specification is listed with contact information.