



Qualification code for concrete testing laboratories



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Preface

This is the fifth edition of CSA A283, *Qualification code for concrete testing laboratories*. It supersedes the previous editions published in 2006, 2000, 1980, and 1974.

This edition includes the following changes:

- a) The categories of certification and listing of additional tests for which laboratories may be certified have been revised to reflect changes in, and to be consistent with, CSA A23.1/A23.2, and to take into account developments in the concrete industry.
- b) The mandatory and optional tests for each of the three categories of certification have been revised. The categories of certification are basic concrete certification, concrete aggregate certification, and advanced concrete certification.
- c) The mandatory calibration and verification requirements for testing equipment have been updated.
- d) The concept of a supervising professional has been introduced to this Standard, and a definition provided. This Standard acknowledges that, depending on the jurisdiction in which the laboratory is located, a non-engineering professional with a license limited to practice engineering in this field might be permitted to be a supervising professional.
- e) The responsibilities and qualifications for the supervising professional have been introduced as mandatory requirements.
- f) The requirements for certification among the categories of certification have been revised. Laboratories can qualify for concrete aggregate certification independent of the basic or advanced concrete certifications.
- g) The Standard provides for recognition of alternative concrete field testing technician certification programs as long as that certification is maintained in good standing; this applies to technicians involved in field testing activities only, and the certification program must meet specified minimum requirements.
- h) The provisions for sharing test equipment among laboratories are defined.
- i) Clarification is provided regarding whether weigh scales and balances are stationary equipment.

This Standard has been referenced by CSA A23.1, *Concrete materials and methods of concrete construction*, since its sixth edition (1977).

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

This Standard was prepared by the Technical Committee on Qualification Code for Concrete Testing Laboratories, under the jurisdiction of the Strategic Steering Committee on Construction and Civil Infrastructure, and has been formally approved by the Technical Committee.

Notes:

- 1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
- 2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
- 3) *This Standard was developed by consensus, which is defined by CSA Policy governing standardization — Code of good practice for standardization as “substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity”. It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*

- 4) To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include "Request for interpretation" in the subject line:
- define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;
 - provide an explanation of circumstances surrounding the actual field condition; and
 - where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.

Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are available on the Current Standards Activities page at standardsactivities.csa.ca.

- 5) This Standard is subject to review within five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line:
- Standard designation (number);
 - relevant clause, table, and/or figure number;
 - wording of the proposed change; and
 - rationale for the change.

CSA A283:19

Qualification code for concrete testing laboratories

1 Scope

1.1

This Standard provides a means of determining a concrete laboratory's capability to test concrete and related materials. It provides for three levels of certification: basic concrete, concrete aggregate, and advanced concrete certification. Its purpose is to ensure that the services obtained from a concrete testing laboratory are of acceptable quality and performance. It also provides minimum requirements for the test equipment, qualifications of personnel who test concrete, and their performance in testing; however, this Standard should not be construed as a standard detailing the technical ability and expertise necessary to provide a comprehensive consulting service in concrete technology.

1.2

This Standard addresses

- a) the requirements for laboratory certification; and
- b) the administration of these requirements.

1.3

In this Standard, "shall" is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the Standard; "should" is used to express a recommendation or that which is advised but not required; and "may" is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

2 Reference publications

This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto.

CSA Group

A23.1:19/A23.2:19

Concrete materials and methods of concrete construction/Test methods and standard practices for concrete