



A3000-18
National Standard of Canada



Cementitious materials compendium



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A3000-18, Index

① Preface

This is the fifth edition of CSA A3000, *Cementitious materials compendium*. It supersedes the previous editions published in 2013, 2008, 2003, and 1998.

Significant changes from the previous edition include the following:

- a) Ground glass pozzolans have been introduced as new supplementary cementitious materials.
- b) Addition of a new Annex A, *Evaluation guidelines for the adequacy of alternative sampling and testing frequencies*, to A3004-A1, *Standard practice for sampling, testing, and inspection*, to provide guidance to manufacturers for the evaluation of the adequacy of an alternate testing frequency using accepted statistical practices.
- c) New requirements have been added for reporting chloride contents of cementitious materials.
- d) The requirement for total organic carbon testing for limestone has been removed.
- e) There have been revisions to A3004-E1, *Standard practice for the evaluation of alternative supplementary cementitious materials (ASCMS) for use in concrete as SCMs*.
- f) Based on the limited data available at the time of publishing and in an effort to provide an additional measure of protection when portland-limestone cement was to be used in combination with a SCM in sulphate environment, the 2013 edition of CSA A3004-C8 was originally separated into the original test, identified as Procedure A, and a new low temperature test, identified as Procedure B. Subsequent data has found the results of Procedure B not to relate to sulphate resistance in concrete, and that meeting the CSA A3004-C8 Procedure A expansion limits in combination with the requirements in Table 5 was sufficient to show good sulphate resistance in concrete. Therefore, Procedure B was withdrawn in Update 5 of the 2013 edition.
- g) Harvested ash processed to meet the specification can is considered to fall under the definition of “fly ash”, provided the harvested ash meets the physical and chemical requirements of CSA A3001 and additional requirements detailed in the new “Materials and manufacture” clause for harvested ash.
- h) Low heat and moderate heat portland cements, blended cements, and portland -limestone cements designations have been deleted.
- i) Reporting of B8 isothermal calorimetry of portland cements, blended cements, portland-limestone cements, and supplementary cementitious materials is reported upon request.
- j) Portland-limestone cements are qualified as MSL or HSL cements based on A3004-C8 testing, removing the requirement to use supplementary cementitious materials.
- k) Other changes have been made to harmonize with various ASTM and ACI publications, including change of terminology from supplementary cementing materials to supplementary cementitious materials.

CSA Group acknowledges that the development of this Standard was made possible, in part, by the financial support of the Cement Association of Canada.

These Standards were prepared by the Technical Committee on Cementitious Materials Compendium, under the jurisdiction of the Strategic Steering Committee on Construction and Civil Infrastructure, and have been formally approved by the Technical Committee.

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A3001-18

Cementitious materials for use in concrete

1 Scope

1.1

This Standard addresses the following aspects of cementitious materials:

- a) their definitions;
- b) their chemical, physical, and uniformity requirements;
- c) the tests required;
- d) the procedures for inspection and sampling; and
- e) the units of measurement, packaging, marking, and storage.

1.2

The cementitious materials for use in concrete are classified as follows in this Standard:

- a) portland cement;
- b) blended hydraulic cement;
- c) portland-limestone cement;
- d) supplementary cementitious materials; and
- e) blended supplementary cementitious materials.

1.3

In these Standards, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the Standards; “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 Standards.

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.

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1.4

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