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# Australian Standard 1012, Part 2—1983

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## METHODS OF TESTING CONCRETE METHOD FOR THE PREPARATION OF CONCRETE MIXES IN THE LABORATORY

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The following interests are represented on Committee BD/42:

- Association of Consulting Engineers, Australia
- Cement and Concrete Association of Australia
- Confederation of Australian Industry
- CSIRO, Division of Building Research
- Department of Transport and Construction
- Department of Public Works, N.S.W.
- National Association of Australian State Road Authorities
- National Association of Testing Authorities, Australia
- National Ready Mixed Concrete Association of Australia
- University of New South Wales

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## PREFACE

This edition of this standard was prepared by the Association's Committee on Methods of Testing Concrete as part of its ongoing program to revise the AS 1012 series of standards on the testing of concrete. It supersedes AS 1012, Part 2—1971.

The major change from the 1971 edition has been the extensive revision of the clauses on preparation of materials. Although the batch masses for the concrete mix are based on oven-dried aggregates, this standard now provides for the use of aggregates in any moisture condition from oven dry to a maximum such that free draining does not occur. An appendix containing a table to assist in determination of proportions has been included, as well as one to assist in determining working volumes.



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# STANDARDS ASSOCIATION OF AUSTRALIA

## Australian Standard METHODS OF TESTING CONCRETE

### PART 2—METHOD FOR THE PREPARATION OF CONCRETE MIXES IN THE LABORATORY

**1 SCOPE.** This standard sets out a method for the preparation of concrete mixes in the laboratory.

**2 REFERENCED DOCUMENTS.** The following standards are referred to in this standard:

- AS 1141** Methods for Sampling and Testing Aggregates  
Part 5—Bulk Density and Water Absorption of Fine Aggregate  
Part 6—Bulk Density and Water Absorption of Coarse Aggregate

**3 DEFINITION.** For the purpose of this standard, the following definition applies:

*Absorption*—that moisture absorbed when a material, oven dried to constant mass, is soaked for  $24 \pm 1$  h in water and then surface dried to obtain the saturated surface dry condition. Saturated surface dry condition is as defined in AS 1141.5 for fine aggregates, and in AS 1141.6 for coarse aggregates.

**4 BATCH MASSES.** The concrete mix shall be based upon a set of pre-determined batch masses calculated for oven-dry aggregates. The aggregate may be used in the mix in any moisture condition ranging from oven dry to a maximum moisture content such that free draining does not occur, provided that the batch masses are adjusted accordingly.

**5 STORAGE OF SAMPLES.** Samples of aggregate on arrival at the laboratory shall be stored in such a manner that their properties remain unchanged. Samples of cement shall be stored in a dry place in airtight containers. Each container shall be as nearly full as possible. Admixtures shall be stored in accordance with the manufacturer's recommendation.

#### **5 REPRESENTATIVE SAMPLES.**

**6.1 General.** Representative subsamples of the materials for making the concrete shall be obtained from the samples delivered to the laboratory.