

Australian Standard™

**Chemical admixtures for concrete,  
mortar and grout**

**Part 1: Admixtures for concrete**



This Australian Standard was prepared by Committee BD/33, Chemical Admixture for Concrete. It was approved on behalf of the Council of Standards Australia on 28 June 2000 and published on 4 October 2000.

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The following interests are represented on Committee BD/33:

The Association of Consulting Engineers Australia  
Australian Chamber of Commerce and Industry  
Australian Concrete Repair Association  
Australian Pre-mixed Concrete Association  
AUSTROADS  
Cement and Concrete Association of Australia  
Concrete Institute of Australia  
Department of Land and Water Conservation NSW  
Institution of Engineers Australia  
University of New South Wales  
University of Western Sydney

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**RECONFIRMATION**

**OF**

**AS 1478.1–2000**

**Chemical admixtures for concrete, mortar and grout  
Part 1: Admixtures for concrete**

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Major stakeholders of this publication have reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 29 August 2018.

## NOTES

Australian Standard™

**Chemical admixtures for concrete,  
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Originated in part as part of AS A173—1969 and AS CA58—1969.  
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## PREFACE

This Standard was prepared by the Standards Australia Committee BD/33, Chemical Admixtures for Concrete, to supersede AS 1478—1992, MP 20.1—1971, Permeability-reducing admixtures, MP 20.2—1975, *Thickening admixtures for use in concrete and mortar*, and MP 20.3—1977, *Expanding admixtures for use in concrete, mortar and grout*.

The objective of this Standard is to provide users and specifiers of chemical admixtures with the requirements for chemical admixtures to be added to concrete mixes incorporating portland and blended cements.

This Revision includes the following changes:

- (a) Requirements for compression testing at 1 year have been removed.
- (b) Provision has been made for a mid-range water-reducing admixture, having performance intermediate between normal and high-range water-reducing admixtures.
- (c) Provision has been made for special admixtures having claimed attributes that cannot be verified by current standard tests, with the objective of demonstrating the influence of such admixtures on normal concrete properties.
- (d) The three miscellaneous publications MP 20.1, MP 20.2 and MP 20.3 have been revised and added to this document as informative appendices.

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## STANDARDS AUSTRALIA

## Australian Standard

## Chemical admixtures for concrete, mortar and grout

## Part 1: Admixtures for concrete

## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard specifies requirements for chemical admixtures to be added to concrete mixes incorporating portland and blended cements.

## NOTES:

- 1 Sampling procedures are given in Appendix A.
- 2 Information on admixtures for use in concrete is given in Appendix B.
- 3 Guide to determine the chloride ion content in admixtures is given in Appendix C.
- 4 Information on thickening admixtures is given in Appendix D.
- 5 Information on shrinkage-reducing and shrinkage-compensating admixtures is given in Appendix E.
- 6 Information on permeability-reducing admixtures is given in Appendix F.
- 7 Admixtures that have been acceptance tested and approved to AS 1478—1992 and that meet the requirements of this Standard do not require re-assessment.

**1.2 APPLICATION**

This Standard shall not be interpreted as preventing the use of cementitious material other than portland and blended cements, such as ground-granulated iron blast furnace slag or pozzolana such as fly ash or silica fume.

**1.3 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard:

## AS

- |          |   |
|----------|---|
| 1012     | Methods of testing concrete   |
| 1012.2   | Method 2: Preparation of concrete mixes in the laboratory   |
| 1012.3.1 | Method 3.1: Determination of properties related to the consistency of concrete—Slump test                           |
| 1012.4   | Method 4: Determination of air content of freshly mixed concrete (all methods)                                      |
| 1012.5   | Method 5: Determination of mass per unit volume of freshly mixed concrete   |
| 1012.6   | Method 6: Method for the determination of bleeding of concrete  |
| 1012.8.1 | Method 8.1: Method of making and curing concrete—Compression and indirect tensile test specimens                    |
| 1012.9   | Method 9: Determination of the compressive strength of concrete specimens   |
| 1012.13  | Method 13: Determination of the drying shrinkage of concrete for samples prepared in the field or in the laboratory |
| 1012.18  | Method 18: Determination of setting time of fresh concrete, mortar and grout by penetration resistance              |
| 1152     | Specification for test sieves   |