

Australian Standard™

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

**Part 2: Methods of sampling and testing
admixtures for concrete, mortar and
grout**

This Australian Standard was prepared by Committee BD-033, Chemical Admixtures for Concrete, Mortar and Grout. It was approved on behalf of the Council of Standards Australia on 18 November 2004.
This Standard was published on 25 February 2005.

The following are represented on Committee BD-033:

Association of Consulting Engineers Australia
Australian Chamber of Commerce and Industry
Australian Industry Group
AUSTROADS
Cement Concrete and Aggregates Australia
Concrete Institute of Australia
Department of Energy, Utilities and Sustainability (NSW)
The University of New South Wales

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Web Shop at www.standards.com.au and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Global Standard*, has a full listing of revisions and amendments published each month.

Australian Standards and other products and services developed by Standards Australia are published and distributed under contract by SAI Global, which operates the Standards Web Shop.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.org.au, or write to the Chief Executive, Standards Australia, GPO Box 5420, Sydney, NSW 2001.

This Standard was issued in draft form for comment as DR 01073.

STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 1478.2–2005

**Chemical admixtures for concrete, mortar and grout
Part 2: Methods of sampling and testing admixtures for
concrete, mortar and grout**

RECONFIRMATION NOTICE

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.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

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

NOTES

Currently in preview, click buy full vers.

Australian Standard™

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

**Part 2: Methods of sampling and testing
admixtures for concrete, mortar and
grout**

First published as AS 2072—1977 and AS 2073—1977.
Amalgamated and redesignated as AS 1478.2—2005.

COPYRIGHT

© Standards Australia

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 6512 2

PREFACE

This Standard was prepared by the Standards Australia Committee BD-033, Chemical Admixtures for Concrete, to supersede AS 2072—1977, *Methods for the sampling of expanding admixtures for concrete, mortar and grout*, and AS 2073—1977, *Methods for the testing of expanding admixtures for concrete, mortar and grout*.

The objective of this Standard is to provide users and specifiers of chemical admixtures with procedures for sampling and testing of concrete, mortar and grout mixes, containing admixtures, including expanding admixtures.

This Standard incorporates the following major changes to AS 2072—1977 and AS 2073—1977:

- (a) The requirements for sampling of the admixtures have been expanded and updated.
- (b) A list of tests that may be required to be performed together with the reference method for each of these tests are included.
- (c) Additional tests have been included for dimensional change, consistency by use of a flow trough and early volume change.

The term 'normative' has been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	4
1.2 REFERENCED DOCUMENTS	4
1.3 DEFINITIONS	5
SECTION 2 SAMPLING	
2.1 SAMPLE SIZE	6
2.2 GRAB SAMPLES	6
2.3 PACKAGING OF SAMPLES	6
2.4 COMPOSITE SAMPLES	6
2.5 ACCEPTANCE TESTING SAMPLE	6
2.6 LABELLING OF SAMPLES	6
SECTION 3 MATERIALS	
3.1 MATERIALS FOR GENERAL ACCEPTANCE TESTS	8
3.2 MATERIALS AND MIXES FOR TESTS FOR SPECIFIC USES	8
SECTION 4 TESTING	
4.1 GENERAL	9
4.2 RECORDS	10
4.3 REPORT	12
APPENDICES	
A TEST FOR COMPRESSIVE STRENGTH (RESTRAINED OR NON-RESTRAINED)	13
B TEST FOR DIMENSIONAL CHANGE OF CONCRETE, MORTAR OR GROUT	16
C TEST FOR WORKABILITY—FLOW CONE	27
D TEST FOR CONSISTENCY OF FRESHLY MIXED GROUTS BY FLOW TROUGH	31
E TEST FOR EARLY VOLUME CHANGE	35

STANDARDS AUSTRALIA

Australian Standard

Chemical admixtures for concrete, mortar and grout

Part 2: Methods of sampling and testing admixtures for concrete, mortar and grout

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out procedures for sampling admixtures for packaged concrete, mortar and grouts and testing concrete, mortar and grout mixes containing admixtures.

This Standard applies to those admixtures intended for use in concrete, mortar and grout and for—

- (a) the evaluation of the performance of those admixtures for concrete, mortar and grout; and
- (b) sampling and testing concrete, mortar and grout mixes containing those admixtures.

This Standard does not apply to those admixtures specified in AS 1478.1.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1012	Methods of testing concrete
1012.1	Method 1: Sampling of fresh concrete
1012.2	Method 2: Preparation of concrete mixes in the laboratory
1012.3	Method 3: Determination of properties related to the consistency of concrete
1012.3.1	Method 3.1: Slump test
1012.3.2	Method 3.2: Compacting factor test
1012.3.3	Method 3.3: Vebe test
1012.3.4	Method 3.4: Compactibility index
1012.4	Method 4: Determination of air content of freshly mixed concrete
1012.4.1	Method 4.1: Measuring reduction in concrete volume with increased air pressure
1012.4.2	Method 4.2: Measuring reduction in air pressure in chamber above concrete
1012.4.3	Method 4.3: Measuring air volume when concrete dispersed in water
1012.5	Method 5: Determination of mass per unit volume of freshly mixed concrete
1012.8	Method 8: Method of making and curing concrete
1012.8.1	Method 8.1: Compression and indirect tensile test specimens
1012.9	Method 9: Determination of the compressive strength of concrete specimens