

Australian Standard[®]

Masonry structures



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The following are represented on Committee BD-004:

- Australian Building Codes Board
 - Australian Chamber of Commerce and Industry
 - Building Designers Association of Australia
 - Calcium Silicate Brick Manufacturers
 - Cement and Concrete Association of Australia
 - Clay Brick and Paver Institute
 - Concrete Masonry Association of Australia Limited
 - CSIRO, Building, Construction and Engineering
 - Housing Industry Association
 - A2 | • Masonry Contractors Association
 - Master Builders Australia
 - NSW Department of Public Works and Services
 - The Association of Consulting Engineers Australia
 - University of Newcastle
-

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Masonry structures

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PREFACE

This Standard was prepared by the Standards Australia Committee BD-004, Masonry Structures, to supersede AS 3700—1998, *Masonry structures*.

This Standard incorporates Amendment No. 1 (May 2002), Amendment No. 2 (December 2003) and Amendment No. 3 (August 2007). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to provide minimum requirements for the design and construction of unreinforced, reinforced and prestressed masonry, including built-in components, for use in masonry applications.

The Standard is the result of a consensus among representatives on the Joint Committee that it be produced as an Australian Standard.

In the preparation of this Standard valuable assistance was given by organizations and individuals experienced in various aspects of the design and construction of masonry, and the Committee acknowledges their help.

Acknowledgment is also made of the assistance gained from the following documents and publications:

- (a) *Australian Masonry Manual*, published by a joint committee of the Public Works Department, N.S.W. and the Association of Consulting Structural Engineers, N.S.W.
- (b) Publications of the Clay Brick and Paver Institute; the Concrete Masonry Association of Australia Co-op Limited; the CSIRO Division of Building, Construction and Engineering; and the Department of Civil, Surveying and Environmental Engineering of the University of Newcastle.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard.

The terms ‘normative’ and ‘informative’ have 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, whereas an ‘informative’ appendix is only for information and guidance.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE AND APPLICATION.....	6
1.2 REFERENCED DOCUMENTS	6
1.3 USE OF ALTERNATIVE MATERIALS OR METHODS	8
1.4 INFORMATION TO BE PROVIDED ON DOCUMENTS	8
1.5 DEFINITIONS	9
1.6 NOTATION	16
SECTION 2 PERFORMANCE REQUIREMENTS FOR DESIGN	
2.1 SCOPE OF SECTION	24
2.2 AIM	24
2.3 PERFORMANCE REQUIREMENTS	24
2.4 DESIGN REQUIREMENTS	24
2.5 SERVICEABILITY, STRENGTH AND STABILITY	25
2.6 LOADS AND LOAD COMBINATIONS	26
2.7 OTHER DESIGN REQUIREMENTS	27
2.8 THERMAL INSULATION	28
2.9 SOUND INSULATION	28
SECTION 3 DESIGN PROPERTIES	
3.1 SCOPE OF SECTION	29
3.2 MASONRY UNITS	29
3.3 MASONRY	29
3.4 TIES AND ACCESSORIES	32
3.5 GROUT	33
3.6 REINFORCEMENT	33
3.7 TENDONS	34
SECTION 4 GENERAL DESIGN ASPECTS	
4.1 SCOPE OF SECTION	35
4.2 MEMBERS OF MIXED CONSTRUCTION	35
4.3 CHASES, HOLES AND RECESSES	35
4.4 CAPACITY REDUCTION FACTORS	35
4.5 CROSS-SECTION PROPERTIES	36
4.6 DESIGN FOR ROBUSTNESS	37
4.7 PREVENTION OF MOISTURE PENETRATION	39
4.8 CONTROL JOINTS	41
4.9 MORTAR JOINTS	41
4.10 WALL TIES	41
4.11 BONDING, TYING AND SUPPORTING	42
4.12 ARCHES AND LINTELS	43
4.13 INTERACTION BETWEEN MASONRY MEMBERS AND SLABS, BEAMS OR COLUMNS	43
4.14 CORBELLING	43
4.15 ATTACHMENT TO FACE OF WALLS	44

SECTION 5 DESIGN FOR DURABILITY	
5.1	SCOPE OF SECTION 45
5.2	EXPOSURE ENVIRONMENTS 45
5.3	MASONRY UNITS 45
5.4	MORTAR 45
5.5	BUILT-IN COMPONENTS 45
5.6	GROUT 46
5.7	REINFORCEMENT AND TENDONS 46
SECTION 6 DESIGN FOR FIRE RESISTANCE	
6.1	SCOPE OF SECTION 49
6.2	FIRE-RESISTANCE LEVELS 49
6.3	STRUCTURAL ADEQUACY 49
6.4	INTEGRITY 53
6.5	INSULATION 54
6.6	RECESSES FOR SERVICES 55
6.7	CHASES 56
6.8	PROTECTION OF STRUCTURAL STEELWORK 56
SECTION 7 STRUCTURAL DESIGN OF UNREINFORCED MASONRY	
7.1	SCOPE OF SECTION 57
7.2	GENERAL BASIS OF DESIGN 57
7.3	DESIGN FOR MEMBERS IN COMPRESSION 57
7.4	DESIGN FOR MEMBERS IN BENDING 72
7.5	DESIGN FOR MEMBERS IN SHEAR 79
7.6	DESIGN OF SHEAR WALLS 81
7.7	DESIGN OF MASONRY VENEER WALLS 81
7.8	DESIGN OF CAVITY WALLS 83
7.9	DESIGN OF DIAPHRAGM WALLS 84
SECTION 8 STRUCTURAL DESIGN OF REINFORCED MASONRY	
8.1	SCOPE OF SECTION 85
8.2	GENERAL BASIS OF DESIGN 85
8.3	GENERAL REINFORCEMENT REQUIREMENT 85
8.4	DESIGN FOR MEMBERS IN COMPRESSION 86
8.5	DESIGN FOR MEMBERS IN BENDING 87
8.6	DESIGN FOR MEMBERS IN SHEAR 88
8.7	DESIGN FOR MEMBERS IN TENSION 90
8.8	DESIGN FOR MEMBERS IN COMBINED BENDING AND COMPRESSION 91
8.9	DESIGN FOR MEMBERS IN COMBINED BENDING AND TENSION 91
SECTION 9 STRUCTURAL DESIGN OF PRESTRESSED MASONRY	
9.1	SCOPE OF SECTION 92
9.2	GENERAL BASIS OF DESIGN 92
9.3	DESIGN CRITERIA FOR PRESTRESSING TENDONS 93
9.4	DESIGN FOR MEMBERS IN COMPRESSION 94
9.5	DESIGN FOR MEMBERS IN BENDING 94
9.6	DESIGN FOR MEMBERS IN SHEAR 97
9.7	DESIGN FOR MEMBERS IN TENSION 97
9.8	DESIGN FOR MEMBERS IN COMBINED BENDING AND COMPRESSION 97
9.9	DESIGN FOR MEMBERS IN COMBINED BENDING AND TENSION 98
9.10	DESIGN OF ANCHORAGE ZONES 98

	<i>Page</i>
SECTION 10 MATERIALS	
10.1 SCOPE OF SECTION	99
10.2 MASONRY	99
10.3 MASONRY UNITS.....	99
10.4 MORTAR.....	99
10.5 WALL TIES, CONNECTORS, ACCESSORIES AND LINTELS	101
10.6 DAMP-PROOF COURSES, FLASHINGS AND WEATHERINGS	101
10.7 GROUT	101
10.8 REINFORCEMENT AND TENDONS.....	102
SECTION 11 CONSTRUCTION	
11.1 SCOPE OF SECTION	104
11.2 GENERAL	104
11.3 MATERIALS	104
11.4 WORKMANSHIP	105
11.5 TOLERANCES IN MASONRY	107
11.6 SITE CONTROL	109
11.7 ADDITIONAL SITE CONTROL OF SPECIAL MASONRY	109
11.8 GROUTED MASONRY.....	110
11.9 MASONRY UNDER CONSTRUCTION.....	110
11.10 CLEANING.....	111
11.11 TESTING OF IN SITU MASONRY	111
SECTION 12 SIMPLIFIED DESIGN OF MASONRY FOR SMALL BUILDINGS	
12.1 SCOPE OF SECTION	112
12.2 MATERIALS	115
12.3 WALL SELECTION	119
12.4 LINTELS.....	131
12.5 BRACING	135
12.6 DETAILING.....	141
12.7 CONSTRUCTION.....	148
12.8 FLASHINGS IN CHIMNEYS.....	149
APPENDICES	
A ADDITIONAL CRITERIA FOR STRUCTURES SUBJECT TO EARTHQUAKE ACTIONS DETERMINED IN ACCORDANCE WITH AS 1170.4—1993	151
AA ADDITIONAL CRITERIA FOR STRUCTURES SUBJECT TO EARTHQUAKE ACTIONS DETERMINED IN ACCORDANCE WITH AS 1170.4—2007	157
B DETERMINATION OF CHARACTERISTIC VALUE	168
C METHOD OF TEST FOR COMPRESSIVE STRENGTH	170
D METHOD OF TEST FOR FLEXURAL STRENGTH.....	174
E ATMOSPHERIC ENVIRONMENTS.....	181
F GUIDANCE ON THE USE OF MASONRY IN RESTORATION WORK AND MASONRY CONSTRUCTED USING SQUARE-DRESSED NATURAL STONE.....	184
FA DURABILITY TESTING.....	185
G METHOD OF MEASUREMENT OF BOW.....	188
H ASSESSMENT OF STRENGTH VALUES FROM TEST RESULTS	189
I TESTING OF IN SITU MASONRY	191
J BASIS OF DESIGN FOR SECTION 12.....	192
K RACKING FORCES	197

STANDARDS AUSTRALIA

Australian Standard
Masonry structures

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE AND APPLICATION**1.1.1 Scope**

This Standard sets out minimum requirements for the design and construction of masonry, including unreinforced, reinforced and prestressed, using manufactured units of clay, calcium silicate and concrete laid in mortar, autoclaved aerated concrete (AAC) laid in thin-bed mortar, and square-dressed natural stone laid in mortar.

The Standard does not give values or material properties for the design and construction of square-dressed natural stone.

NOTES:

- 1 This Standard assumes that the structural design of masonry is entrusted to experienced structural engineers or similar appropriately qualified persons, and that the execution of such work is carried out under the direction of appropriately qualified persons who are experienced in masonry construction and who understand the structural requirements.
- 2 The Standard does not give specific requirements for prefabricated masonry panels or masonry in composite action with steel or concrete structural members. The principles of this Standard should be followed, as far as they are applicable, for such types of construction.
- 3 The provisions of this Standard do not include specification for design and construction of AAC laid in other than thin-bed mortar. However, for masonry so constructed the general principles of this Standard may be used.

1.1.2 Application

This Standard will be referenced in the Building Code of Australia by way of BCA Amendment 10 to be published by 1 January 2002, thereby superseding the previous edition, AS 3700—1998, which will be withdrawn 12 months from the date of the publication of this edition.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1141	Methods of sampling and testing aggregates
1170	Minimum design loads on structures
1170.1	Part 1: Dead and live loads and load combinations
1170.2	Part 2: Wind loads
1170.3	Part 3: Snow loads
1170.4	Part 4: Earthquake loads
	Not applicable
1310	Steel wire for tendons in prestressed concrete
1311	Steel tendons for prestressed concrete—7-wire stress-relieved steel strand for tendons in prestressed concrete

A2