

Australian Standard[®]

Masonry in small buildings

Part 1: Design



This Australian Standard® was prepared by Committee BD-004, Masonry Structures. It was approved on behalf of the Council of Standards Australia on 9 September 2010. This Standard was published on 8 November 2010.

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- Association of Consulting Engineers Australia
 - Australasian Slag Association
 - Australian Building Codes Board
 - Australian Institute of Building Surveyors
 - Building Designers Association of Australia
 - CSIRO Manufacturing & Materials Technology
 - Cement Concrete & Aggregates Australia—Cement
 - Think Brick Australia
 - Concrete Masonry Association of Australia
 - Engineers Australia
 - Housing Industry Association
 - Masonry Contractors Association of NSW
 - Master Builders Australia
 - NSW Department of Commerce
 - 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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Part 1: Design

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PREFACE

This Standard was prepared by the Standards Australia Committee BD-004, Masonry Structures, to supersede, in part, AS 3700—2001, *Masonry structures*.

This Standard incorporates Amendment No. 1 (September 2011). 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 of unreinforced and reinforced masonry, including built-in components, for use in small buildings such as houses and garages. This Standard is intended for the use of designers and specifiers of small buildings and is intended as a companion document to AS 4773.2, *Masonry in small buildings, Part 2: Construction*.

The Committee acknowledges valuable assistance given by organizations and individuals experienced in various aspects of design and construction of masonry.

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.

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STANDARDS AUSTRALIA

Australian Standard
Masonry in small buildings

Part 1: Design

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for the design and specification of masonry in buildings of Class 1 and Class 10a, as defined by the BCA, and complying with the following:

- (a) Leaf thickness of 90 mm or greater.
- (b) The tops of all walls are laterally supported by a roof or floor structure acting as a diaphragm with the exception of parapets, chimneys and cantilevers in accordance with Clause 14.9 and fin walls in accordance with Table 9.1.
- (c) Walls are supported on concrete slabs or footings complying with AS 2870 or suspended slabs complying with AS 3600.
- (d) The geometric limitations of Clause 1.2.3.
- (e) Masonry is constructed and detailed in accordance with AS 4773.2.

The Scope of this Standard does not cover the following:

- (i) Acoustics and energy efficiency.
- (ii) Design of attachments such as basketball hoops, satellite dishes and shade structures and similar attachments.
- (iii) Structures required to be designed for earthquake actions in accordance with AS 1170.4.

NOTES:

- 1 For acoustic and energy efficiency requirements, see the BCA.
- 2 For applications outside the scope of this Standard, the masonry should be designed in accordance with AS 3700.
- 3 Refer to Appendix A for the basis of design and assumptions used in the preparation of this Standard.

1.2 GENERAL LIMITATIONS

1.2.1 Materials

This Standard covers buildings constructed from clay, concrete or calcium silicate masonry units complying with AS/NZS 4455.1.

NOTES:

- 1 The properties required for these units are defined in Clause 3.2.
- 2 This Standard does not cover masonry constructed from AAC units.