AS 1684.3:2021

Australian STANDARD®

STANDARDS Australia

Residential timber-framed construction

Part 3: Cyclonic areas

AS 1684.3:2021

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Australian Building Codes Board
Australian Forest Products Association
Australian Institute of Building Surveyors
Australian Timber Flooring Association
Engineers Australia
Forest and Wood Products Australia
Forest Industries Federation, WA
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Preface

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee TM-010, Timber Structures and Framing, to supersede AS 1684.2—2010.

The objective of this Standard is to provide the building industry with procedures that can be used to determine building practice, to design or check construction details, and to determine member sizes, and bracing and fixing requirements for timber-framed construction in cyclonic areas.

The objectives of this revision are to —

(a) make editorial revisions and some technical changes to correct mistakes and clarify the application of the document;

(b) amend Section 5: Flooring and Decking to remove ambiguities and to reflect current research and experience which is able to provide for a quieter and more robust floor;

(c) amend Table 9.25 of AS 1684.2 to include suitable nail and screw fixings for 45 mm thick roof battens;

(d) reversing the values in Tables 8.18(a) to 8.18(n) to represent JD5 capacities, while continuing to recognise JD4 capacities (an increase the values by 12.5 %) where this is known;

(e) amend AS 1684.2 and AS 1684.3 to provide a suitable deemed-to-satisfy detail for metal tie down to timber connection that is compatible with AS 4773; and

(f) relaxing the notching requirements for non-loadbearing walls

This is Part 3 of a series of Standards for residential timber-framed construction. The Standards in the series are as follows:

AS 1684.1, *Residential timber-framed construction, Part 1: Design criteria*

AS 1684.2, *Residential timber-framed construction, Part 2: Non-cyclonic areas*

AS 1684.3, *Residential timber-framed construction, Part 3: Cyclonic areas*

AS 1684.4, *Residential timber-framed construction, Part 4: Simplified—Non-cyclonic areas*

While AS 1720.3-2016 supersedes AS 1684.1:1999, notwithstanding this, AS 1684.1:1999 is not withdrawn as a standard, and remains relevant as the basis for Parts 2-4. AS 1684.4:2010 (derived from AS 1684.2:2010) remains current.

This Standard refers to Supplements that are an integral part of this Standard. Statements expressed in mandatory terms in Notes to the Span Tables are deemed to be requirements of this Standard.

Notes to the text contain information and guidance. They are not an integral part of the Standard.

The terms “normative” and “informative” are used in Standards to define the application of the appendices 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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Section 1 Scope and general

1.1 Scope and application

1.1.1 Scope

This Standard specifies requirements for building practice and the selection, placement and fixing of the various structural elements used in the construction of timber-framed Class 1 and Class 10 buildings as defined by the National Construction Code and within the limitations given in Clause 1.4. The provisions of this Standard also apply to alterations and additions to such buildings.

This Standard also provides building practice and procedures that assist in the correct specification and determination of timber members, bracing and connections, thereby minimizing the risk of creating an environment that may adversely affect the ultimate performance of the structure.

This Standard may also be applicable to the design and construction of other classes of buildings where the design criteria, loadings and other parameters applicable to those classes of building are within the limitations of this Standard.

NOTE 1 Refer to AS 1684.1 for details of design criteria, loadings and other parameters.

NOTE 2 While this Standard may be used to design Class 10 buildings, less conservative levels of design for this building class may be permitted by building regulations and other Australian Standards.

NOTE 3 Advisory information for the construction and specifications of timber stairs, handrails and balustrades is provided in FWPA's Design Guide 8, see Bibliography.

1.1.2 Application

Throughout this Standard, reference is made to the Span Tables in the Supplements. The Supplements are an integral part of, and shall be used in conjunction with, this Standard.

The Supplements are as follows:

Supplement 0, *General introduction and index*

C1 Supp. 1, *Wind classification C1 — Seasoned softwood — Stress grade F5*

C1 Supp. 2, *Wind classification C1 — Seasoned softwood — Stress grade F7*

C1 Supp. 3, *Wind classification C1 — Seasoned softwood — Stress grade F8*

C1 Supp. 4, *Wind classification C1 — Seasoned softwood — Stress grade MGP 10*

C1 Supp. 5, *Wind classification C1 — Seasoned softwood — Stress grade MGP 12*

C1 Supp. 6, *Wind classification C1 — Seasoned softwood — Stress grade MGP 15*

C1 Supp. 7, *Wind classification C1 — WA seasoned hardwood — Stress grade F14*

C1 Supp. 8, *Wind classification C1 — Seasoned hardwood — Stress grade F17*

C1 Supp. 9, *Wind classification C1 — Seasoned hardwood — Stress grade F27*

C1 Supp. 10, *Wind classification C1 — Unseasoned softwood — Stress grade F5*

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