

AS 1720.1—1997
(Incorporating Amendment Nos 1, 2, 3 and 4)

AS 1720.1—1997

Australian Standard[®]

Timber structures

Part 1: Design methods



This Australian Standard® was prepared by Committee TM-001, Timber Structures. It was approved on behalf of the Council of Standards Australia on 5 September 1997. This Standard was published on 5 November 1997.

The following are represented on Committee TM-001:

- The Association of Consulting Engineers Australia
 - Australian Building Codes Board
 - Building Research Association of New Zealand
 - CSIRO Division of Building, Construction and Engineering
 - Curtin University of Technology
 - Monash University
 - National Association of Forest Industries
 - New Zealand Forest Research Institute
 - New Zealand Timber Industry Federation
 - New Zealand Timber Suppliers Group
 - Pine Australia
 - Plywood Association of Australia
 - University of Technology, Sydney
-

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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 methods

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TM/1, Timber Structures, to supersede AS 1720.1—1988.

This Standard incorporates Amendment Nos 1 (July 1998), 2 (May 2000), 3 (May 2001) and 4 (November 2002). The changes required by the Amendments are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure, or part thereof affected.

This Standard is the result of a consensus among representatives on the Joint Committee to produce it as an Australian Standard.

The objective of this Standard is to provide designers and manufacturers of timber structures with limit state design methods, design data and testing procedures for such structures.

This Standard is a ‘soft conversion’ of the working stress design (WSD) version to the limit state design (LSD) format. The term ‘soft conversion’ implies that average similar design solutions would be obtained from WSD and LSD codes. This approach was taken to ensure a smooth transition from WSD format to the LSD format. Hence only essential changes have been made to facilitate this conversion, and the contents of the LSD code remain substantially the same as the WSD code. New clauses and appendices have been added and the existing text has been thoroughly revised and updated to accommodate the conversion to LSD format.

Differences from the 1988 edition include the following:

- (a) Conversion from WSD to LSD.
- (b) Requirements for design data and details on drawings (Clauses 1.6.2, 1.6.3).
- (c) The properties assigned to each strength group and F-grade multiplied by a factor to reflect the change to LSD.
- (d) Joint types introduced for shear and withdrawal loadings.
- (e) In-plane bending for plywood.
- (f) Glulam grades, including characteristic strengths and elastic moduli.
- (g) New Section on structural laminated veneer lumber.
- (h) Section properties for plywood diaphragms.
- (i) Guidance on appropriate deflection limits for various applications.
- (j) Clauses on beam and column design and on curved and tapered members.
- (k) Design properties for monitored, in-grade tested material.
- (l) An appendix detailing the method for the assignment of capacity factors.

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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