

Australian/New Zealand Standard™

**Timber—Solid—Stress-graded for
structural purposes**

Part 1: General requirements



AS/NZS 1748.1:2011

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee TM-003, Timber Grading. It was approved on behalf of the Council of Standards Australia on 27 January 2011 and on behalf of the Council of Standards New Zealand on 17 December 2010.

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The following are represented on Committee TM-003:

A3P

Australian Timber Importers Federation

BRANZ

Forest and Forest Products Employment Skills Company

Forest and Wood Products Research and Development Corporation

Forests New South Wales

Master Builders Australia

New Zealand Timber Industry Federation

New Zealand Timber Suppliers Group

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Additional Interests:

Dr Geoff Boughton

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Australian/New Zealand Standard

Timber—Solid—Stress-graded for structural purposes

Part 1: General requirements

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TM-003, Timber Grading, to supersede, in part, AS/NZS 1748:2006, *Timber—Mechanically stress-graded for structural purposes*.

This Standard incorporates Amendment No. 1 (October 2012). 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 AS/NZS 1748 series, *Timber—Solid—Stress-graded for structural purposes*, comprises the following parts:

AS/NZS

- 1748 Timber—Solid—Stress-graded for structural purposes
- 1748.1 Part 1: General requirements (this Standard)
- 1748.2 Part 2: Qualification of grading method

The objective of the AS/NZS 1748 series is to specify requirements for structural timber produced using a qualified grading method. Timber that complies with the requirements of this Standard series is suitable for use in accordance with NZS 3603, *Timber Structures Standard*, NZS 3604, *Timber Framed Buildings*, the AS 1684 series, *Residential timber-framed construction*, and the AS 1720 series, *Timber structures*.

The 2006 edition of AS/NZS 1748 was applicable to timber produced using mechanical stress-grading relying on bending of timber about its minor axis. In this revision, the scope has been widened to enable the qualification and use of other grading methods. Part 2 of this AS/NZS 1748 series provides qualification exemptions, under certain conditions, for those producers who have previously satisfied the requirements of AS/NZS 1748:2006.

The requirements of AS 2858, *Timber—Softwood—Visually stress-graded for structural purposes*, AS 2082, *Timber—Hardwood—Visually stress-graded for structural purposes*, AS 3519, *Timber—Machine proof grading*, and NZS 3631, *New Zealand timber grading rules*, are not affected by the provisions of this Standard. Producers grading timber in compliance with those Standards are encouraged to consider the use of the latest edition of AS/NZS 4490, *Timber—Solid—Stress-graded for structural purposes—Verification of properties*, for verification of their structural products.

The structure of the new AS/NZS 1748 series is as follows:

- (a) Part 1, *General requirements* (this Standard), specifies general structural and non-structural requirements for stress-graded timber. It includes a requirement that the grading method has been qualified in accordance with Part 2 and that the structural and other nominated properties have been verified in accordance with the latest edition of AS/NZS 4490.
- (b) Part 2, *Qualification of grading method*, specifies the requirements for qualifying the grading method in accordance with Part 1 of this Standard series. Qualification requirements include evaluation of the characteristic values from tests of the stress-graded timber against the specified characteristic values for design, selection of indicator properties and establishment of target values, correlation and responsiveness analyses and the compilation of a grading method qualification report.

Changes to AS/NZS 1748:2006 are as follows:

- (i) Limitation of the scope of the Standard series to solid timber. All data that underpins the provisions of this Standard series pertains to solid sawn timber. Additional requirements may be needed for manufacture of structural timber products that do not meet the definition of solid wood.

- (ii) Inclusion of the derivation of indicator property target values and their use in verification to demonstrate that the timber has the claimed properties.
- (iii) Inclusion of requirements for the qualification of grading methods.

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. 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/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Timber—Solid—Stress-graded for structural purposes

Part 1: General requirements

1 SCOPE

This Standard sets out general requirements for stress-graded solid timber intended for use in accordance with the AS 1720 series, AS 1684 series, NZS 3603 and NZS 3604.

2 APPLICATION

This Standard shall be read in conjunction with AS/NZS 1748.2 and AS/NZS 4490.

This Standard is primarily intended for use by manufacturers. It may also be referenced by the following users:

- (a) Designers and specifiers when specifying timber for use in structures.
- (b) Purchasers when purchasing structural timber.
- (c) Certifiers and any other parties interested in the manufacture, specification or certification of structural timber.

The product-related requirements of this Standard are intended to apply to timber at the time of manufacture.

3 NORMATIVE REFERENCES

The following are the normative documents referenced in this Standard:

NOTE: Documents referenced for informative purposes are listed in the Bibliography.

AS

1080 Timber—Methods of test

1080.1 Part 1: Moisture content

1604 Specifications for preservative treatment

1604.1 Part 1: Sawn and round timber

1613 Timber—Colours for marking F-grades

1684 Residential timber-framed construction (all Parts)

1720 Timber structures (all Parts)

AS/NZS

1748.1 Timber—Solid—Stress-graded for structural purposes

1748.2 Part 2: Qualification of grading method

4490 Timber—Solid—Stress-graded for structural purposes—Verification of properties

4491 Timber—Glossary of terms in timber-related Standards

NZS

3603 Timber Structures Standard

3604 Timber Framed Buildings

3622 Verification of timber properties

The New South Wales Timber Marketing Act 1977