

Australian/New Zealand Standard™

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

Part 2: Qualification of grading method



AS/NZS 1748.2:2011

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

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Wood Processors Association

Additional Interests:

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Timber—Solid—Stress-graded for structural purposes

Part 2: Qualification of grading method

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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

1748.2 Part 2: Qualification of grading method (this Standard)

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. This Part provides qualification exemptions, under certain conditions, for those producers who have previously satisfied the requirements of AS/NZS 1748:2006, and continue to comply with Appendix A of this Standard.

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 AS/NZS 1748 series is as follows:

- (a) Part 1, *General requirements*, 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, *Timber—Solid—Stress-graded for structural purposes—Verification of properties*.
- (b) Part 2, *Qualification of grading method* (this Standard), 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 pertain 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 2: Qualification of grading method

1 SCOPE

This Standard sets out requirements for the qualification of a grading method to be used in manufacturing stress-graded solid timber that complies with AS/NZS 1748.1.

2 APPLICATION

This Standard shall be read in conjunction with AS/NZS 1748.1 and AS/NZS 4490.

This Standard is primarily intended for use by manufacturers. The use of this Part is required by AS/NZS 1748.1.

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

1720 Timber structures
 1720.1 Part 1: Design methods

AS/NZS

1748 Timber—Stress-graded for structural purposes
 1748.1 Part 1: General requirements
 1748:2006 Timber—Mechanically stress-graded for structural purposes
 4063 Characterization of structural timber
 4063.1 Part 1: Test methods
 4063.2 Part 2: Determination of characteristic values
 4063:1992 Timber—Structural—products—Strength and stiffness evaluation
 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

4 DEFINITIONS

For the purpose of this Standard, the definitions given in AS/NZS 4491 and those below apply. Where the definitions in this Standard differ from those given in AS/NZS 4491, for the purpose of this Standard, those below apply.

4.1 Batch

A quantity of structural timber of the same dimensions, moisture condition and grade produced and graded by the same process over a specified period of time.