

Australian/New Zealand Standard™

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



AS/NZS 4490:2011

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

Scion

Tasmanian Timber Promotion Board

Timber and Building Materials Association (NSW)

Timber Queensland

University of Technology, Sydney

Wood Processors Association

Additional Interests:

Dr Geoff Boughton

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This Standard was issued in draft form for comment as DR AS/NZS 4490.

Australian/New Zealand Standard™

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

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TM-003, Timber Grading, to supersede AS/NZS 4490:1997, *Timber—Stress-graded—Procedures for monitoring structural properties*.

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 objective of this Standard is to provide procedures for the verification of properties of structural timber. A range of different verification methods are presented to fit with the range of scales of production and quality assurance programs in the industry.

This Standard specifies requirements for verifying the structural and other nominated properties of stress-graded timber. This document is referenced in AS/NZS 1748.1, *Timber—Solid—Stress-graded for structural purposes*, Part 1: *General requirements*, and its requirements are mandatory for timber produced in accordance with that Standard; however, it can also be used with other solid structural timber products.

The verification process provides confidence that the stress-graded timber complies with the relevant product requirements and is suitable for use in conjunction with the structural property design values for the specified stress grade.

Changes to the 1997 edition are as follows:

- (i) No initial evaluation is included as grading method qualification is now part of AS/NZS 1748.2, *Timber—Solid—Stress-graded for structural purposes*, Part 2: *Qualification of grading method*.
- (ii) Processes for periodic monitoring have been replaced with a check on the verification method.
- (iii) New procedures are included for verification monitoring.
- (iv) Demonstration of compliance. (A third party audit process may be suitable for this purpose.)

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/STANDARDS NEW ZEALAND

Australian/New Zealand Standard**Timber—Solid—Stress-graded for structural purposes—Verification of properties****1 SCOPE**

This Standard specifies the general principles for verification of the properties of sawn structural timber produced using any method of grading. It presents a range of specific methods that can be selected by manufacturers of structural sawn timber. The verification applies at the time of grading.

NOTES:

- 1 This Standard does not apply to market-place surveillance testing to confirm or establish structural properties.
- 2 This Standard does not lead to qualification of a grading method.

2 APPLICATION

This Standard shall be read in conjunction with the relevant product Standard.

This Standard is intended for use by manufacturers of structural timber to verify that the timber produced in a specified period complies with the relevant product Standard and is suitable for use in conjunction with the design properties of the stress grade to which it is assigned. Timber that satisfies the verification requirements may be designated as 'Verified' in accordance with this Standard.

This Standard may also be used as a reference in contractual arrangements for the sale of timber products. It shall be used as the basis for independent production audits.

NOTES:

- 1 Verified timber produced for end use in New Zealand should satisfy the provisions of the NZ Building Code, which has requirements in addition to this Standard.
- 2 Where timber is classified as 'Not verified', it cannot be claimed to be in compliance with this Standard. Normally, such timber is reprocessed with revised grading parameters and verification is repeated or if it meets the requirements of a lower grade, the timber may be re-branded.

3 NORMATIVE REFERENCES

The following are the normative documents referenced in this Standard:

AS

- | | |
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| 1720 | Timber structures |
| 1720.1 | Part 1: Design methods |
| 2082 | Timber—Hardwood—Visually stress-graded for structural purposes |
| 2858 | Timber—Softwood—Visually stress-graded for structural purposes |
| 3519 | Timber—Machine proof grading |

AS/NZS

- | | |
|--------|--|
| 1748 | Timber—Solid—Stress-graded for structural purposes |
| 1748.1 | Part 1: General requirements |
| 1748.2 | Part 2: Qualification of grading method |
| 4063 | Characterization of structural timber |
| 4063.1 | Part 1: Test methods |