

Australian/New Zealand Standard™

Specification for preservative treatment

Part 5: Glued laminated timber products



AS/NZS 1604.5:2005

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee TM-006, Timber Preservation and Durability. It was approved on behalf of the Council of Standards Australia on 14 December 2004 and on behalf of the Council of Standards New Zealand on 17 December 2004. This Standard was published on 22 March 2005.

The following are represented on Committee TM-006:

A3P
Australian Pesticides and Veterinary Medicines Authority
Consumers Federation of Australia
CSIRO Forestry and Forest Products
Department of Primary Industries and Fisheries
Engineers Australia
Forests New South Wales
Glued Laminated Timber Association of Australia
Housing Industry Association, Australia
LOSP Treated Timber Association
New Zealand Forest Research Institute
New Zealand Timber Industry Federation
New Zealand Timber Preservation Council
Plywood Association of Australasia
Timber Preservers Association of Australasia
Timber Promotion Council

Additional Interests:

Dr Harry Greaves

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TM/6, Timber Preservation and Durability, to supersede AS/NZS 1604.5:2002.

This Standard incorporates Amendment No. 1 (July 2006) and No. 2 (March 2008). 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 specify requirements for preservative treatment of glued laminated timber products for protection against decay or insect attack.

The objectives of this revision are to—

- (a) include requirements for seasoned softwood framing to be used south of the Tropic of Capricorn in hazard class H2 exposure conditions (Section 3); and
- (b) amend the requirements for tributyltin-naphthenate-based preservatives used in structural products in hazard class H3 exposure conditions.

This Standard does not specify the methods of preservative treatment that may be adopted to achieve the specified penetrations and retentions. Where the user is uncertain of the appropriate preservative treatment, additional information may be obtained from state, territory or federal forestry authorities or traders' associations.

This Standard is the third part in AS/NZS 1604, a series of Standards that covers specification for preservative treatment of timber products, as follows:

AS 1604	Specification for preservative treatment
AS 1604.1	Part 1: Sawn and round timber
AS/NZS 1604.2	Part 2: Reconstituted wood-based products
AS/NZS 1604.3	Part 3: Plywood
AS/NZS 1604.4	Part 4: Laminated veneer lumber (LVL)
AS/NZS 1604.5	Part 5: Glued laminated timber products (this Standard)

Preservatives not covered in this edition, and which may have general application, should be brought to the attention of Standards Australia for consideration for inclusion in future editions of this Standard.

WARNING: Important Safety Notice

Improper use of the preservative chemicals and treated products may be hazardous. All individuals involved in the production or testing of treated products should be familiar with the relevant material safety data sheets.

Consumer information sheets dealing with the appropriate use and handling of treated products should be provided as the point of sale literature.

CCA-treated timber should not be used for food preparation surfaces nor in storage units or containers where the foodstuffs will be in direct contact with the treated timber surface.

For the purpose of user friendliness, the following colour page coding is used to differentiate between the four hazard classes:

- (i) *Orange*—Hazard class selection guide.
- (ii) *Yellow*—Hazard class H1.
- (iii) *Blue*—Hazard class H2.
- (iv) *Pink*—Hazard class H3.
- (v) *Green*—Hazard class H4.

Statements expressed in mandatory terms in notes to tables are deemed to be an integral part of this Standard.

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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FOREWORD

The purpose of preservation is to extend the life of the glued laminated timber product by protecting it from decay or insect attack. This increases the range of the end application of the glued laminated timber products and renders it a more useful and reliable material for construction, building and engineering purposes.

The service life of the glued laminated timber product depends on a variety of factors. These include the natural durability of the timber species, the degree of preservative treatment, and the range of hazards and type of environment anticipated during the service life of the product. In addition, the severity of exposure can be reduced by alternative design. Regular inspection and maintenance procedures will assist in minimizing the effects of exposure.

In all conditions of use, the non-durable timber component of the glued laminated timber products can be made durable by correct preservative treatment. Service life may depend upon the glued laminated timber products having been ripped, cross-cut, shaped, bored, machined or having had any such operations or processes carried out prior to preservative treatment. Where subsequent machining is unavoidable, supplementary protection should be applied to the cut surface; however, this protection cannot be expected to be as effective as the original recommended treatment.

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Specification for preservative treatment

Part 5: Glued laminated timber products

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out a specification for preservative treatment of glued laminated timber products. It specifies the preservative penetration pattern and the preservative retention requirements suitable for each hazard class (see Table 1). This Standard does not cover grade or seasoning condition.

1.2 APPLICATION

A2 | This Standard, in conjunction with AS 1604.1 and the AS/NZS 1605 series, is intended for application throughout Australia and New Zealand.

NOTES:

- 1 This Standard does not apply to finger-jointed material, except where finger-jointed laminates are used to fabricate glued laminated timber products. In any other case, the specifications in AS 1604.1 apply.
- 2 In Queensland the Timber Utilisation and Marketing Act 1987 and in New South Wales the Timber Marketing Act 1977 require approval of a preservative treatment and registration of a brand before timber, offered for sale in either of these states, can be described as preservative-treated. Detailed information about requirements of such legislation may be obtained from the state, territory or federation forestry authorities or traders' associations.
- 3 Where products are to be treated to comply with the requirements of this Standard, timber treaters should select suitable timber material to ensure that the finished product can be penetrated to the depth required for each hazard class.
- 4 Where a timber species' treatment properties are not known, trial samples placed into a normal charge/process should give indications of the timber's treatability. These indications should serve as a guide for the treater.

In addition, the following references set down the treatment properties of some well known commercial timbers of the world:

- (a) BS EN 350-2 (see Clause 1.3).
- (b) Keating W.G., Bolza., *Characteristics and uses of timber*, Vol.1, S.E. Asia, Northern Australia and the Pacific, INKATA PRESS Melbourne 1982.

1.3 REFERENCED DOCUMENTS

AS

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|--------|--|
| 1604 | Specification for preservative treatment |
| 1604.1 | Sawn and round timber |
| 5604 | Timber—Natural durability ratings |

AS/NZS

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| 1328 | Glued laminated structural timber |
| 1328.1 | Part 1: Performance requirements and minimum production requirements |