AS/NZS 1604.3:2010

Australian/New Zealand Standard™

# Specification for preservative treatment

# Part 3: Plywood


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 15 September 2010 and on behalf of the Council of Standards New Zealand on 24 September 2010.
This Standard was published on 25 October 2010.

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The following are represented on Committee TM-006:

A3P
Australian Pesticides and Veterinary Medicines Authority
CSIRO, Materials Science and Engineering
Department of Building and Housing (New Zealand)
Department of Primary Industries and Fisheries Queensland
Engineered Wood Products Association of Australasia
Engineers Australia
Forests New South Wales
Glued Laminated Timber Association of Australia
New Zealand Chemical Industry Council
New Zealand Pine Manufacturers Association
New Zealand Timber Industry Federation
New Zealand Timber Preservation Council
Timber Preservers Association of Australia
Timber Queensland
Wood Processors Association

Additional Interests:

Dr Harry Greaves

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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

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*This Standard was issued in draft form for comment as DR AS/NZS 1604.3.*

Australian/New Zealand Standard™

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# Part 3: Plywood

Originated as AS/NZS 1604.3:2002.
Previous edition 2004.
Third edition 2010.



Jointly published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001 and by Standards New Zealand, Private Bag 2439, Wellington 6140

ISBN 978 0 7337 9693 7

# PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TM-006, Timber Preservation and Durability, to supersede AS/NZS 1604.3:2004.

The objective of this Standard is to specify requirements for preservative treatment of plywood products for protection against decay or insect attack.

The objectives of this revision are to—

(a) include requirements for additional glueline treatments for both hazard class 1 and hazard class 2 exposure conditions;

(b) amend the composition of copper quat preservatives to include both alkaline copper and micronized copper systems; and

(c) add copper azole to Table H5.

This Standard does not specify the methods of preservative treatment to 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 federation forestry authorities or traders' associations.

This Standard is part of a series that covers specifications for preservative treatment of timber products, as follows:

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

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.

**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.**

**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.**

Statements expressed in mandatory terms in notes to tables are deemed to be requirements 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.

# CONTENTS

*Page*

# FOREWORD

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

The service life of the plywood product depends on a variety of factors. These include the natural durability of the timber species, the degree of preservative treatment, the range of hazards, the quality and type of glueline, and the 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 plywood products can be made durable by correct preservative treatment. Service life may depend upon the plywood products having been ripped, cross-cut, shaped, bored, machined or having had any such operations or processes carried out after preservative treatment. Where subsequent machining is unavoidable and the treatment type is an envelope, 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 3: Plywood

## SECTION 1 SCOPE AND GENERAL

### 1.1 SCOPE

This Standard sets out a specification for preservative treatment of plywood products where the maximum thickness of any veneer does not exceed 5.0 mm. It specifies the bond type, 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

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. For finger-jointed material, 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 federal forestry authorities, or trades' 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.

5 The following references set down the treatment properties of some well known commercial timbers of the world:

(a) EN 350-2 (see Bibliography).

(b) Keating WG, Bolza E, *Characteristics and uses of timber*, Vol.1, S.E. Asia, Northern Australia and the Pacific, INKATA PRESS Melbourne 1982.

6 Additional guidance on the use/application of preservative-treated plywood is provided in the following FWPA publication:

Bolden S and Greaves H, *Guide to the specification, installation and use of preservative treated engineered wood products*, Project No. PR08.1062.