

Australian/New Zealand Standard™

Specification for preservative treatment

Part 3: Plywood



Standards Australia



STANDARDS
NEW ZEALAND
Te Kaitiaki Take Kōwhiri

AS/NZS 1604.3:2002

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 26 October 2001 and on behalf of the Council of Standards New Zealand on 28 November 2001. It was published on 4 January 2002.

The following interests are represented on Committee TM-006:

Australian Building Codes Board
CSIRO Forestry and Forest Products
Consumers Federation of Australia
Housing Industry Association
Institution of Engineers, Australia
National Registration Authority for Agricultural and Veterinary Chemicals
New Zealand Forest Research Institute
New Zealand Timber Industry Federation
New Zealand Preservation Council
Plywood Association of Australia
Queensland Forestry Research Institute
State Forests of New South Wales
Timber Preservers Association of Australia
Timber Promotion Council
Timber Research and Development Advisory Council of Queensland

Additional interests participating in the preparation of this Standard:

Plywood Association of Australia

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Australia web site at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

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 International or Standards New Zealand at the address shown on the back cover.

Australian/New Zealand Standard™

Specification for preservative treatment

Part 3: Plywood

First published as AS/NZS 1604.3:2002.

COPYRIGHT

© Standards Australia/Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Jointly published by Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 4182 7

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TM/6, Timber Preservation and Durability.

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

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 trades' associations.

This Standard is the third part in AS 1604, a series of Standards, which 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 (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.

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 point of sale literature.

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

- (i) *Orange*—Hazard class selection guide.
- (ii) *Yellow*—Hazard class 1.
- (iii) *Blue*—Hazard class 2.
- (iv) *Pink*—Hazard class 3.
- (v) *Green*—Hazard class 4.
- (vi) *Cream*—Hazard class 5.
- (vii) *Grey*—Hazard classes 6.

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.

CONTENTS

	<i>Page</i>
FOREWORD.....	5
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	6
1.2 APPLICATION	6
1.3 REFERENCED DOCUMENTS.....	6
1.4 DEFINITIONS.....	7
1.5 TIMBER PRESERVATIVES	8
1.6 PRODUCT REQUIREMENTS.....	8
1.7 SELECTION OF HAZARD CLASS NUMBER.....	8
1.8 PRESERVATIVE TREATMENT.....	10
SECTION 2 HAZARD CLASS 1	
2.1 GENERAL.....	11
2.2 PRESERVATIVE PENETRATION REQUIREMENT.....	11
2.3 PRESERVATIVE RETENTION REQUIREMENT.....	11
SECTION 3 HAZARD CLASS 2	
3.1 GENERAL.....	13
3.2 PRESERVATIVE PENETRATION REQUIREMENT.....	13
3.3 PRESERVATIVE RETENTION REQUIREMENT.....	13
SECTION 4 HAZARD CLASS 3	
4.1 GENERAL.....	15
4.2 PRESERVATIVE PENETRATION REQUIREMENT.....	15
4.3 PRESERVATIVE RETENTION REQUIREMENT.....	16
SECTION 5 HAZARD CLASS 4	
5.1 GENERAL.....	17
5.2 PRESERVATIVE PENETRATION REQUIREMENT.....	17
5.3 PRESERVATIVE RETENTION REQUIREMENT.....	17
SECTION 6 HAZARD CLASS 5	
6.1 GENERAL.....	19
6.2 PRESERVATIVE PENETRATION REQUIREMENT.....	19
6.3 PRESERVATIVE RETENTION REQUIREMENT.....	19
SECTION 7 HAZARD CLASS 6	
7.1 GENERAL.....	21
7.2 PRESERVATIVE PENETRATION REQUIREMENT.....	21
7.3 PRESERVATIVE RETENTION REQUIREMENT.....	21
SECTION 8 MARKING	
8.1 LEGIBLE MARKING	23
8.2 MARKING INFORMATION	23
8.3 NUMERICAL LAYOUT OF BRANDS	23
8.4 ADVISORY LABEL—ENVELOPE PENETRATION	24
8.5 COMPLIANCE TESTING	24

APPENDICES

A	GUIDE TO HAZARD CLASSIFICATIONS FOR VARIOUS END-USE APPLICATIONS	25
B	METHOD OF SELECTION AND PREPARATION OF TEST SPECIMEN.....	26

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 products 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 prior to 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.

This Standard 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 AS/NZS 1605, 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.

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

- | | |
|--------|---|
| 1604 | Specification for preservative treatment |
| 1604.1 | Sawn and round timber |
| 2754 | Adhesives for timber and timber products |
| 2754.1 | Part 1: Adhesives for plywood manufacture |

AS/NZS

- | | |
|------|---|
| 1605 | Methods for sampling and analysing timber preservatives and preservative-treated timber |
|------|---|