AS/NZS 1604.3:2021

Australian/New Zealand Standard™

Preservative-treated wood-based products

Part 3: Test methods

AS/NZS 1604.3:2021

This Joint Australian/New Zealand Standard™ was prepared by Joint Technical Committee TM-012, Timber Grading and Preservation. It was approved on behalf of the Council of Standards Australia on 24 March 2021 and by the New Zealand Standards Approval Board on 03 March 2021.

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The following are represented on Committee TM-012:

Australian and New Zealand Timber Preservative Manufacturers Association
Australian Forest Products Association
Australian Timber Flooring Association
Australian Timber Importers Federation
Building Research Association of New Zealand
Engineered Wood Products Association of Australasia
Forest and Wood Products Australia
Forestry Corporation of NSW
Glued Laminated Timber Association of Australia
Ministry of Business, Innovation and Employment (NZ)
National Centre for Timber Durability and Design Life
NATSPEC
New Zealand Timber Industry Federation
New Zealand Timber Preservation Council
New Zealand Wood Processors Association
Responsible Care New Zealand
Scion
Tasmanian Timber Promotion Board
Timber Preservers Association of Australia

This Standard was issued in draft form for comment as DR AS/NZS 1604.3:2018.

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Originated as AS/NZS 1605.1:2006, AS/NZS 1605.2:2006, AS/NZS 1605.3:2006 and AS/NZS 1605.4:2006.
Revised, amalgamated and redesignated as AS/NZS 1604.3:2021.

Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TM-012, Timber Grading and Preservation, to supersede AS/NZS 1605.1:2018, *Methods for sampling and analysing timber preservatives and preservative-treated timber, Part 1: General requirements, sampling, and determination of sapwood and heartwood presence*, AS/NZS 1605.2:2018, *Methods for sampling and analysing timber preservatives and preservative-treated timber, Part 2: Determination of preservative penetration by spot tests*, AS/NZS 1605.3:2018, *Methods for sampling and analysing timber preservatives and preservative-treated timber, Part 3: Analysis methods for determination of preservative retention* and AS/NZS 1605.4:2018, *Methods for sampling and analysing timber preservatives and preservative-treated timber, Part 4: Analysis methods for determination of preservative solution concentration*.

The objective of this Standard is to provide prescriptive methods for testing and analysing preservatives and preservative-treated wood-based products for use by manufacturers (treaters) and associated parties.

This Standard is part of a series on preservative-treated wood-based products as follows:

AS/NZS 1604.1, *Preservative-treated wood-based products, Part 1: Products and treatment*

AS/NZS 1604.2, *Preservative-treated wood-based products, Part 2: Verification requirements*

AS/NZS 1604.3, *Preservative-treated wood-based products, Part 3: Test methods*

The revision of the series includes:

(a) An improved performance-oriented approach.

(b) Improved clarity and uniformity around the requirements for preservative penetration.

(c) Better definition of the framework for treating, specifying and using conforming products.

(d) A new system for verifying the key characteristics of conforming products.

(e) Revised presentation and information content to ensure efficient application of each Part.

(f) Some modifications and additions to the treatment specifications and test methods.

(g) A reorganization of the test methods including removal of those no longer in common use.

The terms “normative” and “informative” are used in Standards to define the application of the appendices to which they apply. A “normative” appendix is an integral part of a Standard, whereas an “informative” appendix is for information and guidance only.

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Section 1 Scope and general

1.1 Scope

This Standard specifies general requirements for testing and analysing preservatives and preservative-treated wood-based products. The types of test methods included are —

(a) solution analysis (Section 2);

(b) penetration spot tests (Section 3); and

(c) retention tests (Section 4).

NOTE 1 Methods for determining the presence of sapwood and heartwood in wood-based products are included in Section 1 to facilitate the correct application and interpretation of the test methods.

NOTE 2 The test methods presented are those considered to be in current use at the time of publication of this Standard and are listed in approximate order of common usage in each case.

NOTE 3 Test methods included in previous versions of this Standard, but now not considered to be in common use, are not included but may, if necessary, be obtained from the previous standards. These methods are listed, for information purposes, in Appendix A.

1.2 Application

This Standard is intended for use in conjunction with AS/NZS 1604.1 and AS/NZS 1604.2, NZS 3640 or the relevant standard to which the wood-based product is claimed to have been treated. AS/NZS 1604.1 specifies that preservative-treated wood-based products be verified in accordance with AS/NZS 1604.2 using the test methods in this Standard.

NOTE Test results should be achieved within the level of accuracy appropriate to the test procedure.

1.3 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document:

NOTE Documents referenced for informative purposes are listed in the Bibliography.

AS 2026, *Laboratory glassware—Density hydrometers*

AS 3529, *Solvents—Toluene*

AS/NZS 1604.1, *Preservative-treated wood-based products, Part 1: Products and treatments*

AS/NZS 1604.2, *Preservative-treated wood-based products, Part 2: Verification requirements*

AS/NZS 4491, *Timber—Glossary of terms in timber-related Standards*

NZS 3640, *Chemical preservation of round and sawn timber*

ISO 2719, *Determination of flash point — Pensky-Martens closed cup method*

ISO 5272, *Toluene for industrial use — Specifications*