

Australian Standard[®]

**Timber—Hardwood—Visually stress-
graded for structural purposes**

STANDARDS
Australia



This Australian Standard® was prepared by Committee TM-003, Timber Grading. It was approved on behalf of the Council of Standards Australia on 4 January 2007. This Standard was published on 7 December 2007.

The following are represented on Committee TM-003:

- A3P
 - Australian Timber Importers Federation
 - BRANZ
 - CSIRO Manufacturing, and Infrastructure Technology
 - 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 Queensland
 - University of Technology, Sydney
-

This Standard was issued in draft form for comment as DR 06039.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

Keeping Standards up-to-date

Australian Standards® are living documents that 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Standards may also be withdrawn.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 that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting www.standards.org.au

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.org.au, or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 2082—2007

Timber—Hardwood—Visually stress-graded for structural purposes

RECONFIRMATION NOTICE

Technical Committee TM-012 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 27 April 2017.

The following are represented on Technical Committee TM-012:

Australian and New Zealand Timber Preservative Manufacturers Association
Australian Forest Products Association
Australian Pesticides and Veterinary Medicines Authority
Australian Timber Flooring Association
Australian Timber Importers Federation
Building Research Association of New Zealand
Department of Agriculture, Fisheries and Forestry (QLD)
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)
NATSPEC
New Zealand Timber Industry Federation
New Zealand Timber Preservation Council
New Zealand Wood Processors Association
Responsible Care New Zealand
Sionit
Tasmanian Timber Promotion Board
Timber Preservers Association of Australia

NOTES

Currently in preview, click buy full vers.

Australian Standard[®]

**Timber—Hardwood—Visually stress-
graded for structural purposes**

Originally as AS O83—1963, AS O82—1965, AS O81—1966,
AS O84—1967, AS O135—1972 and AS 1483—1973.
AS O83—1963, AS O82—1965, AS O81—1966, AS O84—1967,
AS O135—1972 and AS 1483—1973 revised, amalgamated and
redesignated as AS 2082—1977.
Fourth edition AS 2082—2007.

COPYRIGHT

© Standards Australia

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.

Published by Standards Australia GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 8483 6

PREFACE

This Standard was prepared by the Standards Australia/Standards New Zealand Committee TM-003, Timber Grading, to supersede AS 2082—2000. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to provide timber manufacturers, suppliers and users with requirements for visual stress grading of sawn hardwood, which is intended for structural purposes.

The objective of this revision is to align this Standard with other structural timber product Standards and incorporate recent research outcomes.

AS 2082 was first prepared in 1977 as an amalgamation of AS O81—1966, AS O85—1972, AS 1483—1973 and parts of AS O82—1965, AS O83—1963 and AS O84—1967. It drew together these grading rules which had been written for different timber groups such as Western Australian timbers (AS 1483, originally AS O7—1937). AS 2082, AS O83 and AS O84 were revisions of grading rules for Eastern Australian timber, originating as interim numbers 360, 361 and 362 published in 1952 and number 365 first published in 1963.

In 1998, the AS 3818 series was prepared to cover a broad range of visually graded heavy structural products. After the publication of AS 3818.6—2003 for decking for wharves and bridges and AS 3818.7—2006 for large cross-section sawn hardwood engineering timbers, these products are no longer covered by AS 2082.

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

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	4
1.2 APPLICATION	4
1.3 REFERENCED DOCUMENTS	4
1.4 DEFINITIONS	4
1.5 TIMBER SPECIES AND STRESS GRADES	4
1.6 STRUCTURAL GRADES OF HARDWOOD	4
1.7 SIZES AND TOLERANCES	8
1.8 MOISTURE CONTENT OF SEASONED TIMBER	8
1.9 CHARACTERISTICS	9
1.10 GRADE LIMITATION AND GRADING	10
1.11 SAPWOOD SUSCEPTIBLE TO LYCTID BORERS	12
1.12 PRESERVATIVE TREATMENT	12
1.13 MARKING	12
SECTION 2 GRADE DESCRIPTIONS	
2.1 STRUCTURAL GRADE NO. 1	13
2.2 STRUCTURAL GRADE NO. 2	15
2.3 STRUCTURAL GRADE NO. 3	17
2.4 STRUCTURAL GRADE NO. 4	19
2.5 STRUCTURAL APPEARANCE GRADES	21
SECTION 3 A17 GRADE DESCRIPTION	
3.1 GENERAL	22
3.2 SEASONED VICTORIAN ASH — 7	22
APPENDICES	
A STRESS GRADES, STRENGTH GROUPS AND PROPERTIES OF HARDWOOD SPECIES	24
B STRENGTH GROUPS, STRUCTURAL GRADES AND STRESS GRADES OF TIMBER	38
C MEASUREMENT OF CHARACTERISTICS	40
D SUMMARY TABLE OF GRADE DESCRIPTIONS FOR HARDWOOD	48

STANDARDS AUSTRALIA

Australian Standard

Timber—Hardwood—Visually stress-graded for structural purposes

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for visually stress-graded sawn hardwood intended for structural purposes, at the time of grading.

NOTES:

- 1 The coverage of hardwood species or species mixtures listed in this Standard does not imply their availability, or the availability of any particular grade of any species or species mixture.
- 2 This Standard may be used as a basis for certification of conformity under a product certification program.

1.2 APPLICATION

The specification of timber graded to this Standard shall consist of the requirements of this Section together with the relevant grade description given in Section 2 or Section 3, where appropriate.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- | | |
|--------|--|
| 1604 | Specification for preservative treatment |
| 1604.1 | Part 1: Sawn and round timber |
| 1684 | Residential timber-framed construction (all parts) |
| 1720 | Timber structures |
| 1720.1 | Part 1: Design methods |

AS/NZS

- | | |
|--------|--|
| 1080 | Timber—Methods of test |
| 1080.1 | Method 1: Moisture content |
| 1080.2 | Method 2: Slope of grain |
| 1148 | Timber—Nomenclature—Australian, New Zealand and imported species |
| 2878 | Timbers—Classification into strength groups |
| 4073 | Timber—Stress-graded—In-grade strength and stiffness evaluation |
| 4491 | Timber—Glossary of terms in timber-related Standards |

1.4 DEFINITIONS

For the purpose of this Standard, the definitions given in AS/NZS 4491 and those below apply. Where the definitions below differ from those in AS/NZS 4491, for the purpose of this Standard those below apply.