

AS 2082—1979

Australian Standard®

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**Visually stress-graded hardwood  
for structural purposes**

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[Title allocated by Reference Cataloguing Authority:  
TIMBER, HARDWOOD (Stress-graded for  
Structural Purposes)]

The following scientific, industrial and governmental organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Federation of Timber Merchants Associations  
Australian Institute of Building  
CSIRO, Division of Building Research  
Forest Products Association of Western Australia  
Housing Trusts and Commissions  
Lending Institutions  
Master Builders Federation of Australia  
National Association of Australian State Road Authorities  
Radiata Pine Association of Australia  
Royal Australian Institute of Architects  
Sawmillers Associations  
State Departments of Public Works  
State Forestry Departments  
Timber Advisory Council of New South Wales  
Timber Merchants Associations  
Timber Promotion Committee, Victoria  
Timber Research and Development Advisory Council  
Universities

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This standard, prepared by Committee TM/101, Structural Timber Products, was approved on behalf of the Council of the Standards Association on 13 July 1979, and was published on 1 October 1979.

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First published .....	1977
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## PREFACE

This standard was prepared by the Association's Committee on Structural Timber Products as a revision of AS 2082—1977.

The revision was undertaken in order to clarify expression of some of the requirements and to correct some errors and anomalies.

The changes mainly affect the measurement of imperfections and in particular the measurement of *Lyciid*-susceptible sapwood, but do not alter the actual grade specifications.

While the main factor in this standard is strength, consideration has been given to the necessity for a surface which provides a firm backing for the attachment of cladding and lining materials.

A new grade nomenclature has been adopted, i.e. Structural Grade No 1, Structural Grade No 2, Structural Grade No 3 and Structural Grade No 4. Derived from these are stud grades and lintel grades, which provide the straighter material required for studs and lintels; and appearance grades which have limitations on the visual blemishes allowed in structural members exposed to view. Because of the subjective nature of the aesthetic requirement for appearance grades, different limitations may be agreed to between the purchaser and the vendor, provided that all the requirements dictated by strength considerations are met.

In the selling and ordering of structural timber, it is desirable to nominate the required 'F' rating rather than refer to the grade name. Appendix A indicates how this may be achieved.

This standard requires reference to the following Australian standards:

AS 1080	Methods of Test for Timber Part 1—Moisture Content Part 2—Slope of Grain and Spiral Grain
AS 1148	Nomenclature of Commercial Timbers Imported into Australia
AS 1604	Preservative-treated Sawn Timber, Veneer and Plywood
AS 1613	Colours for Marking Stress Graded Timber
AS 1684	SAA Timber Framing Code
AS 1720	SAA Timber Engineering Code
AS 01	Glossary of Terms Used in Timber Standards
AS 02	Nomenclature of Australian Timbers

\* In course of preparation.

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## STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard  
for  
**VISUALLY STRESS-GRADED HARDWOOD  
FOR STRUCTURAL PURPOSES**

## SECTION 1. SCOPE AND GENERAL

**1.1 SCOPE.** This standard sets out requirements for seasoned or unseasoned, sawn, dressed or sized hardwood which is intended for structural purposes and which is stress graded by visual means.

NOTE: The coverage by this standard of all hardwood species does not imply their availability, or the availability of every grade in any species or species group, or the availability of seasoned material in any particular species. Most structural hardwoods are sold unseasoned but appreciable quantities of seasoned material in some species are available in some areas.

**1.2 TIMBER SPECIES AND THEIR STRENGTH GROUPS AND STRESS GRADE RATINGS.** The major species covered by this standard are listed in Appendix A.

Unless the purchaser orders otherwise, species may be supplied mixed, but if there is a mixture and the timber is not branded in the manner provided by Clause 1.14, the stress grade applicable to the species of lowest strength present shall apply to the whole parcel. If the species present cannot be identified the strength group rating shall be that given in Table A3 for mixed hardwood.

## NOTES:

1. Hardwoods other than those listed in Appendix A may be graded to this specification, but care must be taken to determine their correct strength group. Information on the identity and properties of species is available from State Forestry Departments and the Division of Building Research, CSIRO.
2. The durability ratings applied to the species are based on the natural decay resistance of their heartwood in contact with the ground. Sapwood of all species is likely to decay when in ground contact or fully exposed to the weather unless treated in accordance with AS 1604, Preservative-treated Sawn Timber, Veneer and Plywood, to meet the appropriate degree of hazard.
3. The sapwood of many species is also susceptible to attack by *Lycid* borers. Ratings are given in Table A3. Sapwood may be rendered immune from such borer attack if given suitable preservative treatment (see AS 1604). Attention is drawn to the special requirements of the Queensland Timber Users' Protection Act 1972 and the New South Wales Timber Marketing Act 1977 in regard to the sale and use, in those States, of sapwood susceptible to *Lycid* borer attack and the legal acceptability of any particular preservative treatment.
4. Treatment against borer attack will not necessarily be effective against the fungal organisms that cause decay.