AS 3818.7:2026

Australian STANDARD®

STANDARDS Australia

Timber — Heavy structural products — Visually graded

Part 7: Large cross-section sawn hardwood engineering timbers



AS 3818.7:2026

This Australian Standard® was prepared by TM-012, Timber Grading and Preservation. It was approved on behalf of Standards Australia's Standards Development and Accreditation Committee on 22 May 2026.

This Standard was published on 5 June 2026.

The following are represented on Committee TM-012:

Australian Forest Products Association
Australian Timber Flooring Association
Construction Information Systems Limited (NATSPEC)
Engineered Wood Products Association of Australasia
Forest and Wood Products Australia
Glued Laminated Timber Association of Australia
National Centre for Timber Durability and Design Life
Tasmanian Timber Promotion Board
The University of Queensland
Timber Preservers Association of Australia
Timber Queensland

This Standard was issued for comment as DR AS 3818.7:2025

Status of this document

Standards Australia publications are periodically reviewed to ensure their ongoing relevance and accuracy. This document may be withdrawn, revised, or superseded at any time. To verify this document's current status, visit:

www.standards.org.au

ISBN: 978 1 76175 791 4

Australian Standard®

Timber — Heavy structural products — Visually graded

Part 7: Large cross-section sawn hardwood engineering timbers

Originated as AS 3818.7-2006.
Previous edition 2010.
Third edition 2026.

© Standards Australia Limited 2026

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, unless otherwise permitted under the Copyright Act 1968 (Cth).

Users must not use the content in this publication in combination with artificial intelligence (AI) tools for any purpose, unless they have the express prior written consent from Standards Australia.

How to read this Standard

This page explains the meaning of the language and structure of this Standard.

Refer to Standards Australia's Standardisation Guide 006 for more details about drafting rules.

Australian and Australian/New Zealand Standards are voluntary unless they are referenced in legislation or called up in contracts.

Requirements

To conform to a Standard, all requirements in the Standard need to be met.

A requirement is any statement in the Standard which uses the word "shall".

Recommendations, permissions and possibilities

The following words are commonly used in Standards, but statements using them do not have to be followed to conform to the Standard:

(a) "should" means that something is recommended.

(b) "may" means that something is permitted.

(c) "can" means that something is possible.

Structure of Standards

A Standard always has the following parts:

(i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.

(ii) The Scope states what the Standard is about, what it covers and what it does not cover.

(iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.

(iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

A Standard may also include other parts, such as the following:

(1) A normative appendix sets additional requirements that need to be conformed to.

(2) An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Standard will explain when those requirements apply.

(3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TM-012, Timber Grading and Preservation, to supersede AS 3818.7:2010.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this document as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this document is to provide producers and users of large cross-section sawn hardwood structural timbers with requirements for the visual grading and selection of species for timbers intended for use in structures.

The major changes in this edition include updated requirements and enhanced consistency and alignment between all Parts.

A list of all Parts in the AS 3818 series can be found in the Standards Australia online catalogue.

The terms “normative” and “informative” have been used in this document 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.

© Standards Australia Limited 2026

Contents

Page

Preface ..... **v**

1 Scope and general **1**
1.1 Scope 1
1.2 Application 1
1.3 Normative references 1
1.4 Terms and definitions 1
1.5 Timber species 1
1.6 Design 2

2 Product requirements **2**
2.1 General 2
2.2 Dimensions, sizes, tolerances and squareness 2
2.3 Bow and spring 2
2.4 Combination of characteristics 2

3 Grade 1 and Grade 2 hardwood structural timbers **2**
3.1 General 2
3.2 Grade requirements 3

Appendix A (informative) **Design properties** **6**

Bibliography **7**

© Standards Australia Limited 2026

Australian Standard®

Timber — Heavy structural products — Visually graded

Part 7: Large cross-section sawn hardwood engineering timbers

1 Scope and general

1.1 Scope

This document sets out the minimum requirements for visually graded large cross-section sawn hardwood structural timbers greater than 0.016 m^2 in cross-section. These minimum requirements apply at the time of grading.

For structures using large section timber members, the sizes of members are calculated from the known or assumed loads on the members and dimensional requirements specified in the order.

NOTE 1 A cross-section 200 mm × 80 mm has an area of 0.016 m^2.

NOTE 2 Stress grades for design (using AS 1720.1) of timbers graded to this document are given in Appendix A.

1.2 Application

This document shall be read in conjunction with AS 3818.1 to specify sawn hardwood structural timbers greater than 0.016 m^2 in cross-section.

1.3 Normative references

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

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

AS 3818.1, *Timber — Heavy structural products — Visually graded, Part 1: General requirements*

1.4 Terms and definitions

For the purposes of this document, the terms and definitions given in AS 3818.1 apply.

1.5 Timber species

Species suitable for sawn hardwood structural timbers greater than 0.016 m^2 in cross-section are listed in AS 3818.1.

NOTE 1 Species, other than those listed in AS 3818.1 for sawn hardwood structural timbers greater than 0.016 m^2 in cross-section may be graded to this document subject to agreement between the purchaser and supplier.

NOTE 2 Care should be taken to determine the correct strength group and durability rating when the species is not listed in AS 3818.1.

NOTE 3 The lower density species need extra care in regard to assessing nail and connector holding capacity.

NOTE 4 Further information on the identity and properties of species is available from State advisory bodies, State Forestry Departments, WoodSolutions, or other appropriate industry organisations.

If timbers are supplied as a mixture of species and the timber is not marked or branded as required by AS 3818.1, the strength group applicable to the species of the lowest strength group in the parcel shall apply to the whole parcel, and the durability class applicable to the species of the lowest durability class in the parcel shall also apply to the whole parcel.

© Standards Australia Limited 2026