

Australian/New Zealand Standard™

**Reconstituted wood-based panels—  
Specifications**

**Part 1: Particleboard**



## **AS/NZS 1859.1:2004**

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This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee TM-005, Reconstituted Timber Panel Products. It was approved on behalf of the Council of Standards Australia on 12 January 2004 and on behalf of the Council of Standards New Zealand on 27 November 2003.

This Standard was published on 26 March 2004.

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The following are represented on Committee TM-005:

Australian Building Codes Board  
Australian Wood Panels Association  
CSIRO Forestry and Forest Products  
Commercial Furniture Industry Association of Australia  
Furntech  
Housing Industry Association of Australia  
Monash University  
New Zealand Forest Research Institute  
New Zealand Wood Panel Manufacturers Association  
State Forests of New South Wales

Additional Interests:

Dr Alan Halligan

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# Australian/New Zealand Standard™

## Reconstituted wood-based panels— Specifications

### Part 1: Particleboard

Originated as part of AS O115—1968.  
Previous edition AS/NZS 1859.1(Int):2001.  
Jointly revised and designated as AS/NZS 1859.1:2004.  
Reissued incorporating Amendment No. 1 (February 2006).

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Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TM-005, Reconstituted Timber Panel Products, to supersede AS/NZS 1859.1(Int):2001.

*This Standard incorporates Amendment No. 1 (February 2006). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.*

The objectives of this revision are—

- 1 to incorporate the requirements for wood-based panel products harmonized between the wood panel industries in Japan, Australia and New Zealand (JANS 21), as an Joint Australian/New Zealand Standard; and
- 1 to propose these requirements for adoption as an ISO Standard.

JANS 21 was prepared with the agreement of the wood panel industries in Japan, Australia and New Zealand in an effort to harmonize the national Standards of the three countries. This was intended to reduce the non-tariff barrier to trade, and JANS 21 has now been proposed to the International Standardization Organization (ISO) to be adopted as an ISO Standard.

This Standard specifies performance requirements for the manufacture and application of particleboard.

This Standard is Part 1 of the AS/NZS 1859 series, dealing with reconstituted wood-based panel products, as follows:

### AS/NZS

- 1859 Reconstituted wood-based panels—Specifications
- 1859.1 Part 1: Particleboard (this Standard)
- 1859.2 Part 2: Dry-processed fibreboard
- 1859.3 Part 3: Decorative overlaid wood panels
- 1859.4 Part 4: Wet-processed fibreboard

The 1997 edition of AS/NZS 1859.5, Part 5: *Fibre insulating board (Insulation board)*, has been amalgamated into AS/NZS 1859.4 and will be withdrawn.

Requirements for particleboard flooring have been separated from this Standard and become Part 1 of the new AS/NZS 1860 series, as follows:

- AS/NZS 1860 Particleboard flooring
- AS/NZS 1860.1 Part 1: Specifications
- AS 1860.2 Part 2: Installation (in course of preparation)

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

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**Australian/New Zealand Standard**  
**Reconstituted wood-based panels—Specifications**


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**Part 1: Particleboard**


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**1 SCOPE**

This Standard specifies the product requirements for three classes of particleboards, i.e., standard (STD), moisture resistant (MR), and high performance (HP), as classified in Clause 5. It does not cover requirements for particleboard flooring (see Preface).

This Standard is equivalent to the industrial Standard harmonized between the wood panel industries in Japan, Australia and New Zealand, known as JANS 21.

**2 APPLICATION**

The requirements specified in this Standard relate to product properties and are for the purpose of quality control only. They are not the characteristic values for use in structural design calculations.

**3 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard:

## AS/NZS

- 4266 Reconstituted wood-based panels—Methods of test
- 4266.2 Method 2: Dimensions, squareness, flatness and edge straightness of whole panel
- 4266.3 Method 3: Moisture content
- 4266.4 Method 4: Density
- 4266.5 Method 5: Modulus of elasticity in bending and bending strength
- 4266.6 Method 6: Tensile strength perpendicular to plane (internal bond strength)
- 4266.7 Method 7: Surface soundness
- 4266.8 Method 8: Swelling in thickness after immersion in water
- 4266.10 Method 10: Wet bending strength after immersion in water at 70°C or boiling temperature
- 4266.11 Method 11: Moisture resistance under cyclic test conditions
- 4266.13 Method 13: Resistance to axial withdrawal of screws
- 4266.14 Method 14: Dimensional changes associated with changes in relative humidity
- 4266.16 Method 16: Formaldehyde emission—Desiccator method

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- 120 Wood-based panels—Determination of formaldehyde content—Extraction method (called perforator method)
- 326 Wood-based panels—Sampling, cutting and inspection
- 326-2 Part 2: Quality control in the factory
- 622 Fibreboards—Specifications
- 622-1 Part 1: General requirements

## ISO

- 3340 Fibre building boards—Determination of sand content