



STRUCTAply™ Square Edge – Structural Plywood

Product Technical Statement

PRODUCT DESCRIPTION
AND INTENDED USE

STRUCTAply™ Square Edge is a layered panel made from Australian Radiata Pine wood veneers manufactured by Porta to the requirements of AS/NZS 2269. The veneers are bonded together with synthetic phenolic (PF) resin set and cured under heat and pressure in controlled conditions to form a strong and durable Type A bond. Adjacent layers (veneers) are typically at right angles to each other to deliver two-way strength and stability. Radiata Pine is classified as durability Class 4 with an average density of 550 kg/m3.

STRUCTAply™ Square Edge is available in F8 and F11 stress grades in a surface appearance grade of CD and is available untreated, H2S and H2 Termite Treated and LOSP treated H3 against decay.

STRUCTAply™ Square Edge is designed in accordance with the National Construction Code (NCC) and is suitable for use as structural panels within engineered structural systems. These systems must be designed, specified and installed by engineers or other suitably qualified design professionals.

Product durability requirements should also be specified by qualified design professionals to ensure compliance with the Building Code of Australia (NCC).

PRODUCT IDENTIFIER

STRUCTAply™ Square Edge sheets are marked in accordance with the requirements of AS/NZS 2269, and include the brand name STRUCTAply™. An example of untreated plywood is given below:

Porta STRUCTAply STRUCTURAL SQUARE EDGE CD A/
Bond 12-24-05 TIME 14:14 18/05/2026
EWPAACERTIFIED JAS-ANZ AS/NZS 2269.0 MILL NO:333
AUSTRALIAN MADE PEFC 21-31-145 SUPER E0

Place of manufacture:	Myrtleford Victoria 3737, Australia
Legal and trading name of the manufacturer:	Porta Products Pty Ltd
Address for Service:	2 Wella Way Somersby NSW 2250
Website:	www.porta.com.au
Email Address:	sales@porta.com.au
Phone Number:	1300 500 250

Porta has strict quality assurance processes in place to monitor that Porta is manufactured in a manner that meets both the structural and visual requirements of the specific product. Porta is independently third party audited by the Engineered Wood Products Association of Australasia Ltd. (EWPAAC). The EWPAAC certifies Porta manufactured by Porta at its Myrtleford mill. Participation and compliance with the requirements of the EWPAAC's process based quality control scheme includes product testing and monitoring of properties. It provides the basis for the EWPAAC's Product Certification of STRUCTAply™ Square Edge as conforming to the requirements of AS/NZS 2269. The EWPAAC's product certification scheme is accredited under JAS-ANZ. The EWPAAC is a NATA registered and Certified Laboratory.

STRUCTAply™ Square Edge is manufactured from plantation Radiata Pine grown in Australia. It is grown on tree farms which are tended and harvested to provide wood for plywood manufacture and other applications. The crop is managed on a sustainable basis to yield millable trees. Australian plantations are managed in compliance with AS 4707. STRUCTAply™ Square Edge is available as PEFC Responsible Wood certified.

The information contained in this document is current as at March 2026 and is based on data available to Porta at the time of going to print. Porta reserves the right to change the information contained in this document without prior notice. It is your responsibility to ensure that you have the most up to date information available. You can call our customer service team on 1300 500 250 or visit www.porta.com.au to obtain current information. Porta has used all reasonable endeavours to ensure the accuracy and reliability of the information contained in this document. However, to the maximum extent permitted by law, Porta assumes no responsibility or liability for any inaccuracies, omissions or errors in this information nor for any actions taken in reliance on this information.

STRUCTAply™ Square Edge is manufactured in accordance with the following standard AS/NZS 2269:2012 - Plywood Structural'.

1.6 DIMENSIONS AND SHAPE

1.6.1 DIMENSIONS

When measured in accordance with AS/NZS 2098.4, unless otherwise agreed by contract, the actual dimensions of structural plywood shall not differ from the ordered dimension by more than the following tolerances:

(a) Average panel thickness:

- (i) Sanded sheets up to and including 7.5 mm thick — +7%.
- (ii) Sanded sheets over 7.5 mm thick up to and including 17.5 mm thick — +4%.
- (iii) Sanded sheets over 17.5 mm thick up to and including 25 mm thick — +3%.
- (iv) Sanded sheets over 25 mm thick — not specified.

NOTE: For sanded sheets over 25 mm thick, the tolerance on thickness should be agreed between the manufacturer and the purchaser.

- (v) Unsanded sheets — an additional thickness tolerance of — +0.3 mm per sheet.

NOTE: Thickness dimensions apply to sheets without overlays or other coatings.

(b) Average panel length and width — +1.5 mm

1.6.2 SHAPE

When measured in accordance with AS/NZS 2098.4, the structural plywood sheets shall comply with the following requirements:

- (a) Squareness The difference in length of the two diagonals of the sheet shall not exceed 0.2% of the length of the longer diagonal.

- (b) Straightness of edges Any edge of a sheet shall not deviate from a straight line by more than 0.05% of the length of that edge.

- (c) Flatness For an unloaded sheet, the maximum distance between the underside of the sheet and a flat horizontal surface shall not exceed the following:

- (i) For sheets not exceeding 7.5 mm thickness — 50 mm.
- (ii) For sheets exceeding 7.5 mm thickness — 30 mm.

Additionally, when the sheet is loaded as specified in the following, the sheet shall touch the flat horizontal surface vertically below the loaded area:

- (a) For sheets not exceeding 7.5 mm thickness — 10kg.
- (b) For sheets exceeding 7.5 mm thickness — 15kg.

When loading twisted panels in which the four corners do not touch the flat horizontal surface when the sheet is in the unloaded state, three corners shall be held in contact with the flat horizontal surface while the measurement of maximum distance is taken in the unloaded state and while the above loads are applied to the distorted area.

Flatness shall be determined prior to installation or use. At the time of test, panels shall be in accordance with the moisture content requirements of AS/NZS 2098.4 - Clause 1.7.

NOTE: Recommendations for correct storage and handling of structural plywood are given in Appendix A.

1.7 MOISTURE CONTENT

At the time of dispatch of the plywood, the moisture content anywhere within a sheet when determined in accordance with AS/NZS 2098.1 shall be as follows:

- (a) Sheets not exceeding 7.5 mm thickness — not less than 10% nor more than 15%.
- (b) Sheets exceeding 7.5 mm thickness — not less than 8% nor more than 15%.

In the event of dispute, the moisture content shall be determined by the oven-drying method described in AS/NZS 2098.1.

NOTE: Preservative-treated plywood may have been treated after branding, and may be supplied at a higher moisture content. This may be appropriate for the application.

1.8 FINISH

Unless otherwise ordered, each sheet of structural plywood with Quality C face shall have its face sanded smooth over the entire face area.

All surface fillings shall be sanded smooth and any excess filling shall be removed. Slight surface roughness associated with local characteristics, as permitted in Section 2, shall be permitted.

Edges shall be solid (no missing veneer permitted except where it is associated with permitted open characteristics, e.g., holes, splits, edge joints, etc.), clean cut and square to the face. Backs shall be free of tapes. Sawing defects within 5 mm of the edge shall be permitted.

1.11 FORMALDEHYDE EMISSION CLASSES

When measured in accordance with AS/NZS 2098.11, the formaldehyde emissions from structural plywood shall be in accordance with the limits specified in Table 1.1.

TABLE 1.1 FORMALDEHYDE EMISSIONS FROM STRUCTURAL PLYWOOD

Emission Class	Formaldehyde emission limit, mg/L
Super Eo	Ave. 0.3, 0.4 max.

2.1 GENERAL REQUIREMENTS FOR QUALITY C VENEERS

All the veneers in a finished sheet of structural plywood shall comply with the following requirements:

- (a) Veneers shall be free from decay and active insect attack.
- (b) In any 300 mm long line drawn across the grain anywhere on the plywood sheet, the aggregate dimension of knots, gaps in edge joints, splits, holes, patches, bark and unsound resin pockets, gum veins and areas of inactive decay shall not exceed the following:
 - (iii) For Quality C softwood veneers 120 mm.
- (c) Veneers shall be cut smoothly and tightly to a uniform thickness.
- (d) Veneers may be in more than one piece.

The veneer qualities in Clauses 2.5 apply to veneers on the lower limit of grade. Each pack of structural plywood shall include a reasonable distribution of panels having face veneer of quality above the lower limit.

2.5.1 GENERAL

Each sheet of Quality C veneer in a finished sheet of structural plywood shall comply with Clause 2.1. When in more than one piece, the veneers do not require colour matching.

2.5.2 NON-PERMITTED CHARACTERISTICS

The following characteristics shall not be permitted:

- (a) Unfilled holes, splits and open face joints.
- (b) Bark, other than sound bark surrounding knots (sound bark-encased knots), gum and resin pockets.

2.5.3 PERMITTED CHARACTERISTICS

The following characteristics shall be permitted subject to the limitations specified:

- (a) Filled holes-individually not exceeding 50 mm, measured across the grain, and the limitations specified in Clause 2.1(b).
- (b) Knots-sound and individually not exceeding 50 mm, measured across the grain, and the limitations specified in Clause 2.1(b). Bark-encased knots shall be permitted, provided the encased knot is sound and filling, if required, produces a sound surface.

NOTE: The bark is considered as part of the knot.

- (c) Filled splits and face edge joints-individually 9 mm maximum, measured across the grain and half the sheet length or 12 mm, measured across the grain and 600 mm long, tapering to a point; and the limitations specified in Clause 2.1(b).
- (d) Patches-individually not exceeding 75 mm, measured across the grain, and the limitations specified in Clause 2.1(b).
- (e) Sloping grain:
 - (i) not exceeding 1 in 7 if extending through more than one-quarter of the sheet area; and/or
 - (ii) localised in the vicinity of permitted characteristics.
- (f) Discolouration and stains-no limitation:
- (g) Resin streaks-no limitation.
- (h) Glue bleed-through-no limitation.
 - (i) Roughness-slight roughness associated with localized permitted characteristics.

APPENDIX A

STORAGE AND HANDLING OF STRUCTURAL PLYWOOD

(Informative)

Structural plywood requires care in storage and handling. The following suggestions will help keep the plywood in good condition before use and after installation:

- (a) The storage area should be ventilated and protected from sun, rain and wind, which would otherwise bring about rapid changes in temperature and humidity.
- (b) Support for the sheets should be provided at both ends and middle to avoid distortion.
- (c) The stack should be kept dry and clear of ground contact, and placed so that it will not be exposed to mechanical damage.
- (d) The sheets should be stacked on their flat, NOT on edge.
- (e) To avoid staining, fading and surface checking, the sheets should not be exposed to the weather while awaiting installation.

CERTIFICATIONS:

EWPAACertification Myrtleford:

[Click here](#)

EWPAACertification Product Certification Scheme Myrtleford:

[Click here](#)

PRODUCT SUPPORT:

For any additional product enquiries you can contact our customer service team on 1300 500 250 or visit porta.com.au to obtain more information.

CONTACT

For further information on this product, contact:

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