

Australian/New Zealand Standard™

AS/NZS 4266.32

Reconstituted wood-based panels—Methods of test

Method 32: Veneer bond strength

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TM-005, Reconstituted Timber Panel Products.

This Standard is a revision of AS/NZS 4266.32:1996, with updated referenced document information.

METHOD

1 SCOPE

This Standard sets out a method for determining veneer bond strength. It is applicable to reconstituted wood-based panels overlaid with natural or reconstituted wood veneers.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

2193 Calibration and classification of force-measuring systems

AS/NZS

4266 Reconstituted wood-based panels—Methods of test

4266.1 Method 1: Sampling, cutting, and conditioning of test pieces

4266.6 Method 6: Internal bond strength

4491 Timber—Glossary of terms in timber related Standards

3 DEFINITIONS

For the purpose of this Standard, the definitions in AS/NZS 4491 and AS/NZS 4266.1 apply.

4 PRINCIPLE

The force, perpendicular to the plane of the panel and required to pull the veneer off the substrate of the test piece, is measured.

5 APPARATUS

The following apparatus is required:

- (a) *Sharp knife and straightedge*
- (b) *Wood blocks—40 mm × 40 mm and approximately 20 mm thick.*

- (c) *Wood or metal blocks*—suitable for attachment to a tensile testing machine and capable of being bonded to test pieces.
- (d) *Testing machine*—fitted with adjustable supports as shown in AS/NZS 4266.6, capable of applying sufficient load to cause the test piece to fail.

The testing machine shall comply with accuracy of repeatability as described in AS 2193.

6 TEST PIECES

The test pieces, 100 mm × 100 mm, shall be prepared from each sample sheet.

7 PROCEDURE

The procedure shall be as follows:

- (a) Draw two diagonal lines, corner to corner, on the face and back of each test piece.
- (b) Glue the 40 mm × 40 mm × 20 mm thick wooden block centrally to the face of each test piece using the diagonal markings for accurate location.

NOTE: The glue should be non-penetrating glue such as hot melt; do not use excessive heat during the preparation of the test pieces.

- (c) Using a sharp knife, score the veneer around the perimeter of each block ensuring that the veneer is cut through completely.

NOTE: The blade should cut to a depth of at least 1.5 times the thickness of the veneer.

- (d) Glue the block adapted for use with the tensile testing machine to the centre of the first block.

NOTE: The block and the adhesive used should be such that failure occurs in the test piece and not in the blocks or in the glue-lines applied to prepare the test piece for testing.

- (e) The test pieces shall be gripped in a tensile testing machine by means of a jig, jaws or grips, so as to result in a uniform tensile stress over the whole surface area of the test piece during testing.

NOTE: Tests pieces from thin boards, i.e., ≤12 mm substrate thickness, should be reinforced by gluing a similar size piece of 16 mm or 18 mm substrate to the underside of the sample to prevent undue bending (see Figure 1).

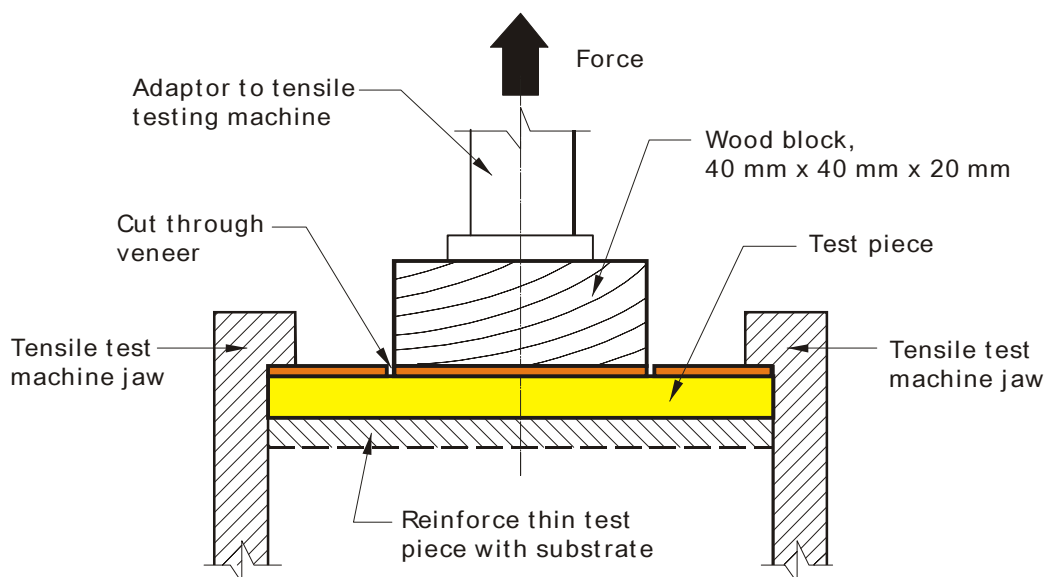


FIGURE 1 REINFORCEMENT TO THIN TEST PIECE

COPYRIGHT