

Australian/New Zealand Standard™

Reconstituted wood-based panels—Methods of test

Method 28: Bond strength of PVC films

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 4266.28:1996, with updated referenced document information.

METHOD

1 SCOPE

This Standard sets out a method for determining the bond strength of PVC films overlaid onto reconstituted wood-based panels.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS/NZS

4266 Reconstituted wood-based panels—Methods of test

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

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 bond strength is determined by measuring the force required to peel the PVC film from the substrate surface.

5 APPARATUS

The following apparatus is required:

- (a) Knife and straightedge or a twin bladed knife with the blades set 25 mm apart.
- (b) Clamping device attached to a spring balance reading 20 kg at full scale or a tensile testing machine equipped with suitable grips.

6 TEST PIECES

The test piece shall be either the full panel or three pieces, each of 250 mm × 25 mm.

7 PROCEDURE

The procedure shall be as follows:

- (a) Make parallel cuts 25 mm apart and approximately 250 mm long along the length of the panel at three places across the width, i.e., approximately 75 mm from each edge of the panel and midway from the edges.
- (b) Peel back about 20 mm of the PVC film at one end of the cut strip and attach the clamping device. The clamp is such that the full 25 mm width is gripped.
- (c) Pull the PVC strip back on itself at an angle of 180° and at a rate of approximately 300 mm/min.
- (d) Observe the load on the spring balance.
- (e) Alternatively, the cut test pieces can be placed in a tensile testing machine and the force to peel back the PVC film measured.

8 TEST REPORT

The test report shall contain the following:

- (a) Name and address of the testing laboratory.
- (b) Sampling report according to AS/NZS 4266.1.
- (c) Date of the test report.
- (d) Reference to this Standard, i.e., AS/NZS 4266.28.
- (e) Panel type and thickness.
- (f) Relevant product specification.
- (g) Surface treatment, if relevant.
- (h) Specific apparatus used, in case of different possibilities allowed in the Standard.
- (i) The following calculated or recorded data:
 - (i) The range of the forces needed to peel back the PVC film.
 - (ii) The mean peel force, in newtons.
- (j) All deviations from this Standard.