

Australian/New Zealand Standard™

Reconstituted wood-based panels—Methods of test

Method 21: Over-cure or under-cure of resin

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 4266.21:1996, with updated referenced document information.

METHOD

1 SCOPE

This Standard assesses the degree of cure or hardness of the laminated surface. It is applicable to all low pressure overlaid 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 melamine surface is etched with sulphuric acid. The extent of the etching is determined by the use of a dye, and the colour produced is proportional to the degree of resin cure.

5 APPARATUS

5.1 Materials

The following materials are required:

- (a) *Sulphuric acid (0.2 N).*
- (b) *Rhodamine red dye.*

5.2 Apparatus

The following apparatus is required:

- (a) *Graduated pipette.*
- (b) *50 mm watch glass.*
- (c) *Timer.*
- (d) *Absorbent cloth.*

6 TEST PIECES

The test pieces shall be 100 mm × 100 mm.

7 PROCEDURE

The procedure shall be as follows:

- (a) Clean the test piece surface, using methylated spirits if necessary.
- (b) Invert watch glass onto the test piece surface. Dispense about 1 mL of acid; contain a small amount (ca. 0.1%) of the dye under the watch glass onto the test piece surface. Lower the watch glass edge to prevent acid escaping.
- (c) Commence timing. After 2 h ± 5 min, remove the watch glass and wash off acid with cold water.
- (d) Wipe surface dry and visually rate the surface according to the following ratings:
 - (i) *Rating 1*—faint marking, no surface rise or loss in gloss (over-cure).
 - (ii) *Rating 2*—slight marking, slight surface rise and loss in gloss.
 - (iii) *Rating 3*—moderate marking, moderate surface rise but still gloss in places.
 - (iv) *Rating 4*—definite marking, definite surface rise and surface gloss has vanished.
 - (v) *Rating 5*—very definite marking, very definite surface rise (under-cure).

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 4266.21.
- (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) Test results expressed as stated Clause 7(d).
- (j) All deviations from this Standard.