# Australian/New Zealand Standard<sup>™</sup>

# Reconstituted wood-based panels— Methods of test

# Method 8: Swelling in thickness after immersion in water

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#### **PREFACE**

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TM-005, Reconstituted Timber Panel Products, to supersede AS/NZS 4266.8(Int):2001.

This Standard is equivalent to the industrial Standard harmonized between the wood panel industries in Australia, Japan and New Zealand, known as JANS 7.

#### **METHOD**

# 1 SCOPE

This Standard specifies a method for determining the swelling in thickness of 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 |
| 4266.35 | Method 35:   | Dimensions 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

Swelling in thickness is determined by measuring the increase in thickness of the test piece after complete immersion in water.



#### 5 APPARATUS

#### 5.1 Micrometer

Micrometer, or similar measuring instrument, having flat and parallel circular anvils of between 6.0 mm to 16.0 mm diameter and an operation pressure between 0.02 MPa to 0.05 MPa. The graduation of the apparatus shall allow reading to 0.01 mm.

NOTE: The anvil diameter selected will depend on the panel type. In principle, panels of low density and/or uneven surface should be measured using the larger anvil diameter.

#### 5.2 Water bath

Water bath, capable of maintaining a temperature of  $20 \pm 1$  °C, and in which the test pieces can be maintained in the conditions specified in Clause 6.3.

## **6 TEST PIECE**

### 6.1 Sampling

Eight test pieces shall be taken from each panel to be tested. Sampling and cutting of the test pieces shall be carried out in accordance with AS/NZS 4266.1.

#### 6.2 Dimensions

The test pieces shall be square with a side length of  $50 \pm 1$  mm.

NOTE: Test pieces of larger size may be used where there is difficulty in safely cutting small pieces. In such cases, the correlation should be derived with the size specified in this Standard.

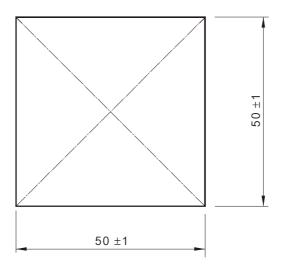
## 6.3 Conditioning

Test pieces shall be conditioned in accordance with AS/NZS 4266.1.

# 7 PROCEDURE

#### 7.1 Thickness measurement

Measure the thickness of each test piece to an accuracy of 0.01 mm at the intersection of the diagonals, in accordance with AS/NZS 4266.35 (see Figure 1).



**DIMENSIONS IN MILLIMETRES** 

FIGURE 1 TEST PIECE FOR THE MEASUREMENT OF SWELLING IN THICKNESS