

Australian/New Zealand Standard™

Methods of test for pulp and paper

**Method 208s: Physical testing of pulp
handsheets**



AS/NZS 1301.208s:2007

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee PK-019, Methods of Test for Pulp and Paper. It was approved on behalf of the Council of Standards Australia on 8 March 2007 and on behalf of the Council of Standards New Zealand on 16 March 2007.
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The following are represented on Committee PK-019:

Australian Plantation Products and Paper Industry Council (A3P)
Appita
CSIRO Forestry and Forest Products
Ensis Papro, SCION
National Association of Forest Industries

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RECONFIRMATION
OF
AS/NZS 1301.208s:2007
Methods of test for pulp and paper
Method 208s: Physical testing of pulp handsheets

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Technical Committee PK-019 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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The following are represented on Technical Committee PK-019:

Appita
New Zealand Paper Forum
Monash University
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NOTES

Australian/New Zealand Standard™

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Method 208s: Physical testing of pulp handsheets

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Foreword

This standard was prepared by Joint Technical Committee PK-019, Methods of Test for Pulp and Paper, as part of AS/NZS 1301, *Methods of test for pulp and paper*.

This edition cancels and replaces AS/NZS 1301.208s:1997.

The main revisions in this edition are to introduce one new test and to clarify the purpose of Figure 2. In addition, the minimum number of test pieces to be tested is stated.

The term ‘informative’ has been used in this Standard to define the application of the annex to which it applies. An ‘informative’ annex is only for information and guidance.

Introduction

This standard is based on the British procedure of 1936^[1]. This and the 1989 edition of the standard indicate a preference for calculating each strength index from conditioned grammage. Earlier editions required calculation of strength factors from oven dried (o.d.) grammage. This edition of the standard requires that the chosen basis for calculation, conditioned basis or o.d. basis, be reported.

A plan for cutting eight handsheets to do those tests normally required by pulp users is given. The plan is only for the purpose of illustration, and may be modified according to the tests to be made and the number of specimens to be tested. It has been shown that testing four handsheets per set is adequate for some purposes.^[2]

This Standard has much in common with but is not identical to ISO 5270:1998, *Pulps—Laboratory sheets—Determination of physical properties*.

Similar standards

TAPPI T220sp-01

Canadian PAPTAC D12

Physical testing of pulp handsheets

1 Scope

This standard prescribes the procedures to be used for the determination of certain physical properties of handsheets made from any kind of papermaking pulp.

For accurate and reproducible results the procedure for forming and conditioning the handsheets in AS/NZS 1301.203s shall be followed closely. The physical tests shall be done in full compliance with the standards referenced for each test, except where this standard prescribes specific deviations from those standards. This standard does not cover determination of optical properties of pulp.

2 Normative references

The following documents are referred to in this standard.

AS

- 1301.440s Bendtsen air permeance of paper and board
- 1301.448s Tensile strength of paper and paperboard (Constant rate of elongation method)

AS/NZS

- 1301.203s Forming handsheets for physical testing of pulp
- 1301.400s Tearing resistance of paper
- 1301.403s Bursting strength of paper
- 1301.407s Ring crush test
- 1301.415s Standard atmosphere for testing paper and board and procedure for monitoring the atmosphere
- 1301.420s Gurley air permeance of paper (ISO 5636-5:2003, MOD)
- 1301.423rp Folding strength of paper—Kohler-Molin method
- 1301.426s Determination of thickness and apparent bulk density or apparent sheet density
- 1301.434s Crush resistance of corrugating medium
- 1301.447s Sheffield air permeance of paper and board
- 1301.450rp Compression strength of paper and board—Short span test
- 1301.453s Bending resistance of paper and board—Constant rate of deflection
- 1301.457s Determination of moisture content in paper, board and pulps
- 1301.459rp Zero-span wet tensile strength of pulp (ISO 15361:2000, MOD)

3 Number and grammage of handsheets

The handsheets to be tested shall have been prepared in accordance with AS/NZS 1301.203s. A set of handsheets consists of as many acceptable handsheets as are required for the tests to be done, normally eight, which shall have a mean o.d. grammage of $60 \pm 2 \text{ g/m}^2$, or four, which shall have a mean o.d. grammage of $120 \pm 4 \text{ g/m}^2$, depending on the requirements of the subsections of this standard. Each set shall be tested for o.d. grammage in accordance with Clause 6, to ensure that it meets this grammage requirement.

NOTE 1 — Sheet grammage on a conditioned basis would be 62 to 68 g/m^2 or 124 to 136 g/m^2 .

4 Conditioning

Examine the sheets and discard any which are damaged or have a perceptible fault, e.g. uneven thickness or froth marks, which might affect the test result.