

Australian/New Zealand Standard™

Methods of test for pulp and paper

**Method 207s: Determination of stock
concentration**



AS/NZS 1301.207s: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 29 June 2007 and on behalf of the Council of Standards New Zealand on 13 July 2007.

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The following are represented on Committee PK-019:

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

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This Standard was issued in draft form for comment as DR 07142.

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

RECONFIRMATION
OF
AS/NZS 1301.207s:2007
Methods of test for pulp and paper
Method 207s: Determination of stock concentration

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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
Scion

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Australian/New Zealand Standard™

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee PK-019, Methods of Test for Pulp and Paper to supersede AS/NZS 1301.207s:1998, *Methods of test for pulp and paper, Method 207s: Determination of stock concentration*.

The objective of this revision is to reconfirm the test method set out in ISO 4119:1995.

This Standard specifies a method for determining the stock concentration of aqueous pulp suspensions. It is used in laboratory procedures for the determination of other pulp properties and is referred to in a range of other ISO standards where pulp suspensions are involved. It is not intended for determining the saleable mass of slush pulps.

This Standard is identical with and has been reproduced from ISO 4119:1995, *Pulps—Determination of stock concentration*.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text, 'this International Standard' should read 'this Australian/New Zealand Standard'.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

AUSTRALIAN/NEW ZEALAND STANDARD

Methods of test for pulp and paper

Method 207s:

Determination of stock concentration

1 Scope

This International Standard specifies a method for determining the stock concentration of aqueous pulp suspensions. It is used in laboratory procedures for the determination of other pulp properties and is referred to in a range of other ISO standards where pulp suspensions are involved. It is not intended for determining the saleable mass of slush pulps.

In principle, this method is applicable to all kinds of aqueous pulp suspensions.

2 Definitions

For the purposes of this International Standard, the following definitions apply.

2.1 stock: Aqueous suspension of one or more pulps, which may contain fillers and additives.

2.2 stock concentration: Ratio of the oven-dry mass of material that can be filtered from a stock sample, to the mass of unfiltered sample, when determined as specified in this International Standard.

NOTE 1 In this International Standard, the stock concentration is expressed as a percentage by mass [% (*m/m*)].

3 Apparatus

Ordinary laboratory apparatus and

3.1 Weighing containers, of sufficient size for weighing the stock sample or the filter (see clause 5, note 4).

3.2 Balance, capable of weighing a mass of 100 g to 500 g with an error of less than 0,1 %.

3.3 Filtering device, such as a Büchner funnel, of diameter 90 mm to 150 mm, a large filtering flask, and circular filter paper to fit the funnel; the paper shall be such that all visible fibre and inorganic material will be retained.

3.4 Means for drying the sample, for example suitable drying oven or hotplate. The temperature of the drying oven shall be $105\text{ °C} \pm 2\text{ °C}$ and that of the hotplate $150\text{ °C} \pm 15\text{ °C}$.

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2 A microwave oven may optionally be used if the operating conditions (power setting and drying time) are experimentally determined to produce the same drying effect on pulp as produced by a normal drying oven. Incorrect operating conditions may cause charring of the sample.

3 A temperature of 150 °C for the hotplate may be too high for some pulps and cause charring of the sample.

3.5 Balance, capable of weighing the dried mat of fibres with an error of less than 0,1 %.

4 Sampling and sample preparation

4.1 General

Mix the stock thoroughly, and stir it while the sample is being taken. Samples shall be removed with a suitable vessel by a scooping action, to minimize the separation of fibres from the water. The entire sample may be obtained in one dipping action, or several smaller samples may be combined, but all of the stock removed shall be included in the sample to be weighed. Incorrect sampling techniques can introduce significant errors at higher concentrations. Take samples for two determinations, or as many as are indicated in the test method for which the determination of stock concentration is being made.