

Australian/New Zealand Standard™

Methods of test for pulp and paper

Method 451rp: Fibre furnish analysis



AS/NZS 1301.451rp: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 December 2006 and on behalf of the Council of Standards New Zealand on 19 December 2006.

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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 1301.451rp:2007
Methods of test for pulp and paper
Method 451rp: Fibre furnish analysis

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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:

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Australian/New Zealand Standard™

Methods of test for pulp and paper

Method 451rp: Fibre furnish analysis

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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 1301.451rp—1992.

This Standard conforms to ISO 9184-1:1990 except that this Standard requires a minimum of 800 fibres to be counted.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the annex to which they apply. A ‘normative’ annex is an integral part of a Standard, whereas an ‘informative’ annex is only for information and guidance.

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Fibre furnish analysis

1 Scope

This standard prescribes a recommended practice for identifying the types of fibre present in a sample of pulp, paper or paperboard and for determining the proportions by mass of each fibre type.

It does not include extensive information on the identification of fibre species which is best obtained from the references listed in Annex B. However it is necessary to be able to identify the species of fibre present so that the correct weight factors are applied in the calculations of composition. For reliable results it is necessary for the analyst to be experienced in the identification of fibre species and pulp types. For best results it is desirable for more than one analyst to complete the analysis and to express the results as a mean of all analysts' results.

With respect to weight factors themselves, they vary with the kind of fibre and with the type of pulping. Separate weight factors should be used for each kind of fibre present in the furnish under examination and these should be determined by the actual operator carrying out the fibre furnish analysis, to avoid inconsistencies between different operators. If no pure material is available to determine weight factors then the operator cannot claim that the results are valid.

Weight factors of fibre types are at best an estimate unless pure samples of each are available. They can change from day to day with changing wood condition, pulping and bleaching.

This recommended practice for fibre furnish analysis is therefore, in view of the foregoing reservations, an imprecise method and should be regarded as such.

2 Normative references

The following documents are referred to in this Standard.

AS/NZS	
1301.418s	Ash content of wood, pulp, paper and board
1301.452rp	Determination of weight factors by the comparison method
1301.457s	Determination of moisture content in paper, board and pulps

3 Definitions

For the purpose of this Standard the definitions below apply.

3.1 Fibre species

The species of wood from which the fibre is derived.

3.2 Fibre type

The pulping process by which the fibre was separated from other fibres and components of the wood. The process may be chemical or mechanical or a combination of both.

3.3 Weight factor

A specific dimensionless factor for each kind of fibre defined in relation to the weight factor of a standard reference, originally cotton which was set at one. The weight factor however can be measured by comparison to a pulp of known weight factor. This procedure is described in AS/NZS 1301.452rp.