AS/NZS 1301.451rp:2007
Reconfirmed 2017

AS/NZS 1301.451rp:2007

Australian/New Zealand Standard™

Methods of test for pulp and paper

Method 451rp: Fibre furnish analysis

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.
This Standard was published on 12 February 2007.

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

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 06456.

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

RECONFIRMATION

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

RECONFIRMATION NOTICE

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.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 4 April 2017.

Approved for reconfirmation in New Zealand on behalf of the Standards Council of New Zealand on 10 August 2017.

The following are represented on Technical Committee PK-019:

Appita
New Zealand Paper Forum
Monash University
Scion

NOTES

Australian/New Zealand Standard™

Methods of test for pulp and paper

Method 451rp: Fibre furnish analysis

Originated as AS 1301.451rp—1992.
Jointly revised and designated as AS/NZS 1301.451rp:2007.

Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 8020 2

Contents

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.

NOTES

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 result 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.