

Australian/New Zealand Standard™

Methods of test for pulp and paper

**Method 443: Boiling water resistance
of paperboard**



AS/NZS 1301.443:2019

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The following are represented on Committee PK-019:

- Appita
- Australian Forest Products Association
- Australian Institute of Packaging
- Monash University
- New Zealand Paper Forum
- Scion

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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Technical Committee PK-019, Methods of Test for Pulp and Paper, as part of AS/NZS 1301, *Methods of test for pulp and paper*, to supersede AS/NZS 1301.443s:2005.

The objective of this Standard is to specify a method for determination of the boiling water resistance of paperboard.

There is no corresponding ISO Standard for this property.

The major change in this revision is to update the identification of one normative reference. No technical changes were made.

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Method 443: Boiling water resistance of paperboard

1 Scope

This Standard specifies the procedure to be used when measuring the boiling water resistance of paperboard. It is applicable in particular to the testing of plaster linerboard for use in the manufacture of plasterboard and is derived from the plasterboard manufacturing process.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

AS/NZS 1301.414s, *Methods of test for pulp and paper, Method 414s: Conditioning of paper for testing*

AS/NZS 1301.415s, *Methods of test for pulp and paper, Method 415s: Standard atmosphere for testing paper and board and procedure for monitoring the atmosphere*

3 Apparatus

The following apparatus is required:

- (a) Open water bath, capable of maintaining water at boiling point.
- (b) Interval timer, capable of measuring to within 1 s.

4 Preparation of test pieces

The preparation shall be as follows:

- (a) Condition the paperboard sample in accordance with AS/NZS 1301.414s in the standard atmosphere prescribed in AS/NZS 1301.415s.
- (b) Cut from the sample two test pieces each measuring 150 mm × 150 mm.
- (c) Without damaging the surface, mark a 50 mm × 50 mm square in the centre of each test piece on the liner side.

NOTE 1 A rubber stamp which prints a 50 mm × 50 mm square is suitable for this purpose.

NOTE 2 The liner side refers to that side of a multi-ply sheet which carries an outer ply, usually of higher quality than the other plies, intended to become the outer side of the plasterboard, container or carton into which the sheet is to be converted. If the sheet is an unlined sheet but has one side of higher quality than the other in terms of appearance or strength, the higher quality side is to be treated as the liner side. If one side is indistinguishable from the other do an equal number of tests with each side exposed to the water and average the result.

- (d) Fold each test piece to form a square-bottomed box with the base measuring 100 mm × 100 mm and with the liner side of the test piece on the inside. Secure the corners so that the box will float without unfolding. Avoid excessive handling of the test area.