AS/NZS 1301.443s:2005

Australian/New Zealand Standard™

Methods of test for pulp and paper

Method 443s: Boiling water resistance of paperboard

Appita

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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
National Association of Forest Industries
New Zealand Forest Research Institute

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Australian/New Zealand Standard™

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Method 443s: Boiling water resistance of paperboard

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Preface

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*.

There is no corresponding ISO Standard for this property.

This edition cancels and replaces AS 1301.443s—1988.

Contents

Boiling water resistance of paperboard

1 Scope

This standard describes 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 this Standard.

AS
1301.P414m Conditioning of paper for testing

AS/NZS
1301.415s Standard atmosphere for testing paper and board and procedure for monitoring the atmosphere

3 Apparatus

3.1 Open water bath, capable of maintaining water at boiling point.

3.2 Interval timer, capable of measuring to within one second.

4 Preparation of test pieces

4.1 Condition the sample in accordance with AS 1301.P414m in the standard atmosphere prescribed in AS/NZS 1301.415s.

4.2 Cut from the sample two test pieces each 150 mm square.

4.3 Without damaging the surface, mark a 50 mm square in the centre of each test piece on the liner side.

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

4.4 Fold each test piece to form a square-bottomed box with the base 100 mm square 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.

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.

5 Procedure

5.1 Fill the water bath with distilled or demineralized water and maintain heat to the point where it is just boiling with a minimum of turbulence.

NOTE:2 — Renew water frequently, depending on the size of the water bath, to prevent a build up of dissolved solids. The water must be kept just boiling for the duration of the test. This can require a reduction in the amount of heat applied as evaporation takes place. The area above the bath must be kept free from obstruction.