AS/NZS 1301.800:2019

Australian/New Zealand Standard™

Methods of test for pulp and paper

Method 800: Compression resistance of fibreboard boxes (cases)

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AS/NZS 1301.800:2019

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The following are represented on Committee PK-019:

Appita
Monash University
New Zealand Paper Forum
Scion

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Australian/New Zealand Standard™

Methods of test for pulp and paper

Method 800: Compression resistance of fibreboard boxes (cases)

Originated in Australia as AS 1301.800s—1978.
Jointly revised and designated as AS/NZS 1301.800s:2006.
Revised and redesignated AS/NZS 1301.800:2019.

Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand 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 1301.800s:2006 *Methods of test for pulp and paper – Method 800s: Compression resistance of fibreboard boxes (cases)*.

The objective of this Standard is to prescribe the apparatus and test procedure to be followed when assessing the compression resistance of unfilled or filled fibreboard boxes in any desired direction.

The major changes in this edition are as follows:

The requisite specifications of compression testers with platen areas of *any* size are expressed more clearly; a sub-clause is included to state that five replicate tests are expected — though not obligatory; a calculation clause is included; the clarity of expression in some clauses has been enhanced; and testing of filled boxes has been included.

Standard AS 2582.3, which is an identical adoption of ISO 2234, prescribes a method for testing the compression resistance of filled fibreboard boxes using a static load.

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1 Scope

This Standard prescribes the apparatus and test procedure to be followed when assessing the compression resistance of unfilled fibreboard boxes or of filled boxes in any desired direction.

NOTE In New Zealand the term "case" is used instead of "box".

2 Normative references

The following Standards contain provisions which, through reference in this test, constitute provisions of AS/NZS 1301.800s. At the time of publication, the editions indicated were valid. All standards are subject to revisions, and parties to agreements based on AS/NZS 1301.800s are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

AS 1048, *International fibreboard box code*

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

The box to be tested is placed between the platens of a compression tester and a load is applied until failure occurs or a specified value for load or displacement is reached.

4 Apparatus

4.1 Compression tester

A motor-driven, mechanical or hydraulic, platen type compression tester equipped with a zero setting adjustment and capable of applying load through uniform movement of one or both platens at a relative speed of 10 ± 3 mm/min.

NOTE 1 Comparison with results obtained using a standard specifying a different speed e.g. 12.5 mm/min ± 2.5 mm/min is not recommended.

The platens shall be horizontal with bearing surfaces that are flat and of greater length and width than the box to be tested. They shall be fixed horizontally and sufficiently rigid to withstand the testing stress without perceptible lateral displacement. The lower platen shall be permanently marked with a suitable geometric pattern to facilitate central positioning of the boxes, thus avoiding eccentric loading.

The platens shall be flat to within ±0.5 mm and the two shall remain parallel to within 2 parts per 1000 at all times during the test.

Compression testers are available with one platen held by a universal joint at its centre so this platen is free to tilt in any direction rather than be fixed horizontally. **The results obtained using this type of compression tester will differ from those obtained using one with two rigid platens.** If this type of compression tester is used, its use shall be highlighted in the report.

NOTE 2 Tests may be carried out without a displacement measuring system if the purpose of the test is to determine only the maximum load before failure, but such tests do not comply with this Standard.