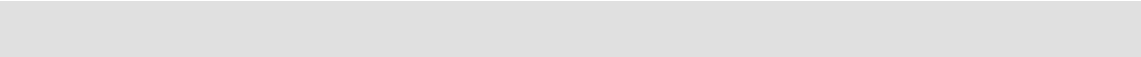




Mechanical Testing ISO/IEC 17025 Application Document

Annex D: Pulp/paper testing and related packaging products

June 2015



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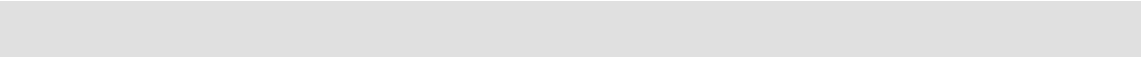
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Mechanical Testing Annex D: Pulp/paper testing and related packaging products

This document provides interpretative criteria and recommendations for the application of ISO/IEC 17025 for both applicant and accredited facilities conducting pulp and paper testing under Mechanical Testing.

Applicant and accredited facilities must also comply with the ISO/IEC 17025 standard and Mechanical Testing field application document and any field annexes, policies and/or technical circulars (refer to *NATA procedures for accreditation*).

The clause numbers in this document follow those of ISO/IEC 17025 but since not all clauses require interpretation the numbering may not be consecutive.

5.5.2 Common equipment performance checks

Facilities are responsible for establishing their own equipment assurance program. This is to ensure that all equipment used satisfies the need to produce consistent and reliable and where appropriate traceable results. In doing so facilities must ensure that where methods writing bodies have included equipment calibration and checking intervals in standard methods that these intervals must be followed if the methods are covered by the accreditation. Facilities should refer to the guidance documents available for equipment (General Equipment Table) for further information on calibrations and checks on equipment.

The following supplementary information pertains to equipment items having specific application to pulp and paper testing and may not be directly described within the General Equipment Table.

Item of equipment	Calibration interval (years)	Checking interval (months)	Procedures and references
Autotitrator		12	Volume delivered.
Bending resistance	2		Load cell calibration.
	2		Check value.
	2		Bending angle.
	2		Bending speed.
	2		Bending length. AS/NZS 1301.453
Bendtsen porosity roughness tester	5,000 to 10,000 tests		Roughness head. Manostat weights. Roughness jig. AS/NZS 1301.439 and 440
Burst tester	1		Pressure transducer calibration.
	2		Pumping rate.
		3	Diaphragm height test AS/NZS 1301.403

Item of equipment	Calibration interval (years)	Checking interval (months)	Procedures and references
		6	Check at zero and one point against a gauge block or length bar and record results. Inspect anvils. If the gauge block or length bar is not externally calibrated check it immediately after callipers are calibrated and use for the six-monthly check.
Centrifuge	2		Rotational frequency.
Die cutter	2		Paper dimension checks.
		6	Visual check for wear
Freeness tester	2		Bottom orifice flow rate. Screen plate calibration. AS/NZS 1301.206
Guillotine		12	Tensile paper width
		12	Tear paper dimensions. AS/NZS 1301.448 and AS/NZS 1301.400
Hand sheet press			
	2		Pressure gauge. AS/NZS 1301.214
		12	1st press time to pressure.
		12	1st press time at pressure.
		12	2nd press time to pressure.
		12	2nd press time at pressure. AS/NZS 1301.203
Hot plate		5 years	Surface temperature.
Kajaani fibre analyser		3	Rayon check.
Laboratory blotter		Each batch	Klemm absorbency. Water uptake. Grammage. Thickness. Dimensional stability. AS/NZS 1301.214
PFI mill	2		Rotational frequency. Peripheral speed. AS/NZS 1301.209
Porosimeter	2		
		Each use	Check value. AS/NZS 1301.447

Item of equipment	Calibration interval (years)	Checking interval (months)	Procedures and references
Pulp disintegrator			
		12	Rotational frequency – against counter.
		24	Rotational frequency – against tachometer.
		12	Blade pitch. AS/NZS 1301.214
Pulping digester		1	Temperature probe check.
		6	Temperature calibration.
Purified water system		1	Conductivity.
Roughness tester			
	2		Primary (air flow) calibration.
		Each use	Check value. AS 1301.441.
Sheet machines			
		12	Drainage time.
		12	Agitation time.
		12	Dwell time.
		12	Air couching time.
		12	Air couching pressure.
		24	AS 1301.203
Spectrophotometer			
		3	Paper tabs.
		Each use	Black cup.
Stock divider			
		24	Volume check.
		24	Grammage check.
Tear tester			
	2		Load cell calibration.
	2		Pendulum friction.
		12	Length of tear. AS/NZS 1301.400
Wood chip screens		12	Timer check, Vibration angle (where applicable), Screen aperture sizes.

5.10.1 Reporting the results

Packaging items

Where wet or saturated items have been received for testing the facility shall pre-condition by drying to stable mass before conditioning as per the standard. The condition in which the items were received shall be reported.

Where replacement fill materials are used these shall be reported in full – dimensions, density, etc. Reports must also identify the printing upon fibreboard materials under test.

References

This section lists publications referenced in this document. The year of publication is not included as it is expected that only current versions of the references shall be used.

Standards

AS/NZS 1301.203s	<i>Methods of test for pulp and paper - Forming handsheets for physical testing of pulp</i>
AS/NZS 1301.206s	<i>Methods of test for pulp and paper - Freeness of pulp</i>
AS/NZS 1301.209s	<i>Methods of test for pulp and paper (metric units) - Laboratory processing of pulp - PFI mill method</i>
AS/NZS 1301.214s	<i>Methods of test for pulp and paper - Equipment for preparation of handsheets</i>
AS/NZS 1301.400s	<i>Methods of test for pulp and paper - Tearing resistance of paper</i>
AS/NZS 1301.403s	<i>Methods of test for pulp and paper - Bursting strength of paper</i>
AS/NZS 1301.426s	<i>Methods of test for pulp and paper - Determination of thickness and apparent bulk density or apparent sheet density</i>
AS 1301.439s	<i>Methods of test for pulp and paper - Bendtsen roughness of paper and paperboard</i>
AS 1301.440s	<i>Methods of test for pulp and paper - Bendtsen air permeance of paper and board</i>
AS/NZS 1301.441s	<i>Methods of test for pulp and paper - Sheffield roughness of paper and board</i>
AS/NZS 1301.447s	<i>Methods of test for pulp and paper - Sheffield air permeance of paper and board</i>
AS 1301.448s	<i>Methods of test for pulp and paper - Tensile strength of paper and paperboard (Constant rate of elongation method)</i>

Amendment Table

The table below provides a summary of changes made to the document with this issue.

Section or Clause	Amendment
Title	Amended to include packaging products
Packaging items	New section incorporating text from the former Appendix (now deleted) covering packaging products.
Equipment performance checks table	Amended to include only those activities applicable to pulp and paper testing.
References	Updated