Specific Accreditation Criteria

ISO/IEC 17025 Application Document

Manufactured Goods - Annex

Testing of textiles and related products

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Testing of textiles and related products

This document provides interpretative criteria and recommendations for the application of ISO/IEC 17025 for both applicant and accredited facilities testing textiles and related products.

Applicant and accredited facilities must comply with all relevant documents in the NATA Accreditation Criteria (NAC) package for Manufactured Goods (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.

6 Resource requirements

6.4 Equipment

6.4.7 & 6.4.10

Common equipment performance checks

Facilities must ensure that where methods writing bodies have included equipment calibration and checking intervals in standard methods that these intervals must be followed.

Facilities should refer to NATA's *General Accreditation Guidance: General Equipment - Calibration and Checks, General Equipment Table* for further information.

The following supplementary information pertains to equipment items having specific application to textile and related product testing.

Item of equipment	Calibration interval (years)	Checking interval (months)	Procedures and references
Abradant fabric	Initial		Check against specification. Check end point with reference fabric.
Abrasion resistance			
Inflated diaphragm machine		12	AS 2001.2.7
Oscillatory cylinder machine		12	AS 2001.2.30
Rotary platform double-head abrading machine		12	AS 2001.2.28

Item of equipment	Calibration interval (years)	Checking interval (months)	Procedures and references
Abrasion tester			
Flex			AS 2001.2.26
Frosting unit/universal wear tester			AS 2001.2.22
Martindale			Check Lissajous figure. Check against standard fabric(s), AS 2001.2.25, ISO 12947-1.
Air flow apparatus (wool testing)	Ten thousand tests		As detailed in AS/NZS 1133 or IWTO-6
Air permeability apparatus	*6 months	On use	AS 2001.2.34
Alkaline milling / colour fastness to washing testing device Rotatable shaft		12	AS 2001. 4.5, 4.11 ISO 105 E03
Almeter	*6 months		Reference gauge. Reference top. IWTO-17
Atlas (wool testing) (Length measurement apparatus)			
Check gauges		12	Gauges ±0.25 mm at 20°C.
Staple length measurement system		8 hours	AS 2810 Appendix A
Ball burst attachment	*Initial		Check dimensions of steel ball, annular rings.
Bulk tester	Initial		Check dimensions.
Circular cutter	2		Check dimensions.
		On use	Visual inspection for damage.
Colorimeter		On use	AS 2001.4.A01, ISO 105 A05

Item of equipment	Calibration interval (years)	Checking interval (months)	Procedures and references
Colour matching booth		6	Light operation time. Light intensity. Angle of viewing.
Conductivity meter		12	
Constant tension winding tester		On use	
Crease recovery tester		On use	Check mass AS 2001.2.17. Specimen dimensions.
Crockmeter		12	Stroke length, peg size and mass
Drape tester		On use	Distance of platform to projection.
Dry cleaning machine		12	AS 2001.5.7
Dynamic load test machine		6	Dimensions. Condition.
Evenness tester		1	Check against reference samples.
Exposure cabinet (colour fastness to daylight)		Initial	AS 2001.4.B01
		On use	Clean glass.
Extraction units		6	Function check.
Flex cracking resistance tester		12	Stroke. Speed.
Friction tester		6	Equipment manual.
Furnace		1	Temperature check.
Geotextile equipment			
CBR burst plunger		12	Dimensions and damage.
Drop cone tester		6	Dimensions and damage.
Drop cone tester measuring		6	Dimensions and damage.
Permittivity tester flow tubes		6	Flow rate.

Item of equipment	Calibration interval (years)	Checking interval (months)	Procedures and references
Grey scales		6	Condition.
Hexapod tumble tester		6	Speed. Condition of pod.
Hydraulic diaphragm bursting tester		12	Calibrate pressure measuring device.
Iron		6	Temperature settings.
Lamps (Colour fastness to artificial light)		*	* Frequency for intensity drop checks to take into account lamp life under typical operating conditions. If a time-based lamp replacement system is used this must be an evidence-based program.
Laserscan	1		
		Before use	IWTO – 12. Check against reference samples.
Laundrometer		12	Temperature. Speed
Microscope	1		Line gratings
Perspiration tester		24	Mass, dimensions. AS 2001.4.E01, 4.E02, 4.17
Pick counter			
Manual		Initial	Check scale.
Electronic		6	Against calibration card.
Pilling test equipment			
Photographs		24	Condition of photographs.
Brush		12	Speed, condition.
ICI		12	Tube length/diameter/hardness, check liners (using reference fabrics), check revs, pilling box dimensions.

Item of equipment	Calibration interval (years)	Checking interval (months)	Procedures and references
Martindale		12	ISO 12947-1
Random tumble		12	Condition of air supply line, check liners (using reference fabrics).
Pressing apparatus		24	AS 2001.4.6
Projection microscope		12	Line grating.
Resistance to compression apparatus (wool testing)			
Force transducer		6	Linearity.
Rubbing tester			see Crockmeter
Rubfastness tester (Carpets)		12	AS 2111.19.1
Scorch tester		12	Temperature settings.
Seam opening tester (Deadweight testing machine)			Check masses, clamps. AS 2001.2.21
Skein gauge		24	
Snag tester		12	Condition.
Soiling tester		12	Comparison to standard.
Spectrophotometer		12 or on use	AS 2001.4.A01 and ISO 105 A04
Spray tester		On use	AS 2001.2.16
Stiffness tester		24	Condition.
Tear tester (falling pendulum/Elmendorf)		12	Using check weights. AS 2001.2.8
		On use	Friction of pointer.
Tetrapod		24	Speed. Condition of tetrapod.
Thickness testers			

Item of equipment	Calibration interval (years)	Checking interval (months)	Procedures and references
Carpet	2		
		6	Against gauge block.
Cloth (static)		6	Against gauge blocks. AS 2001.2.15
Thread counter		24	Lengths.
Tumble drier		12	Speed-rotational /temperature.
Twist tester		24	Test length, pretensioning mass. AS 2001.2.14
Viscometer	Initial		AS 2001.3.6
		24	AS 2001.3.6
Washing machine			
Cubex		24	
Type A (Wascator)		12	AS 2001.5.4. Check dimensions, cycle.
Type B		12	AS 2001.5.4
Weatherometer	6	3	Humidity and Blue reference scales.
Wrap reel		24	Circumference AS 2001.2.23
Yarn balance			
Manual		On use	
		12	Lengths.
Electronic		On use	Compare to manual for specific parameters.

Note: * Commonly conducted by laboratory staff.

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 2001.2.7	Determination of breaking force and extension of yarns
AS 2001.2.8	Determination of tear force of fabrics using the ballistic pendulum method
AS 2001.2.14	Determination of twist in yarns
AS 2001.2.15	Determination of thickness of textile fabrics
AS 2001.2.16	Determination of water repellency of textile surfaces – Spray rating test
AS 2001.2.17	Determination of resistance of fabrics to water penetration – Hydrostatic pressure test
AS 2001.2.21	Determination of seam opening due to the application of force in the transverse direction
AS 2001.2.22	Determination of yarn slippage in woven fabrics at a standard stitched seam
AS 2001.2.23	Determination of linear density of textile yarn from packages
AS 2001.2.25	Determination of the abrasion resistance of fabrics by the Martindale method
AS 2001.2.26	Determination of abrasion resistance of textile fabrics (flexing and abrasion method)
AS 2001.2.28	Determination of abrasion resistance of textile fabrics (rotary platform, double-head method)
AS 2001.2.30	Determination of abrasion resistance of coated textile fabrics (oscillatory cylinder method)
AS 2001.2.34	Determination of permeability of fabrics
AS 2001.3.6	Determination of cuprammonium fluidity of cotton and cellulosic man-made fibres
AS 2001.4.A01	Colourfastness tests - General principles of testing
AS 2001.4.B01	Determination of colourfastness to daylight of textile materials
AS 2001.4.6	Determination of colourfastness to hot pressing
AS 2001.4.E01	Colourfastness to water
AS 2001.4.11	Determination of colourfastness to bleaching with sodium hypochlorite

AS 2001.4.E02	Determination of colourfastness to seawater
AS 2001.4.17	Determination of colourfastness to perspiration (Superseded)
AS 2001.5.4	Dimensional change - Domestic washing and drying procedures for textile testing (ISO 6330:2000, MOD)
AS 2001.5.7	Dimensional change - Determination of dimensional change on dry cleaning in perchloroethylene excluding finishing - Machine method
AS/NZS 1133	Wool - Determination by the Airflow Method of the mean fibre diameter of core samples of raw wool
AS/NZS 2001.4.5	Determination of colourfastness to chlorinated swimming pool water
AS/NZS 2111.19.1	Tests and measurements –Colourfastness tests - Rubbing
AS/NZS 2810	Wool - Determination of staple length and staple strength
ISO 105-A04	Textiles - Tests for colour fastness - Part A04: Method for the instrumental assessment of the degree of staining of adjacent fabrics
ISO 105-A05	Textiles - Tests for colour fastness - Part A05: Instrumental assessment of change in colour for determination of grey scale rating
ISO 105-E03	Textiles - Tests for colour fastness - Part E03: Colour fastness to chlorinated water (swimming-pool water)
ISO 12947-1	Textiles - Determination of the abrasion resistance of fabrics by the Martindale method - Part 1: Martindale abrasion testing apparatus
ISO/IEC 17025	General requirements for the competence of testing and calibration laboratories
IWTO-6	Method of test for the determination of the mean diameter of wool fibres in combed sliver using the airflow apparatus
IWTO-12	Measurement of the mean & distribution of fibre diameter using the Sirolan-Laserscan fibre, diameter analyser
IWTO-17	Determination of fibre length distribution parameters

NATA publications

NATA Accreditation Criteria (NAC) package for Manufactured Goods

General Accreditation Guidance	General Equipment - Calibration and Checks, General Equipment Table

Amendment Table

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

Section or Clause	Amendment
Whole document	Clauses have been aligned with ISO/IEC 17025:2017. No new interpretative criteria or recommendations have been included other than editorial changes. Addition of Security Classification Label