STANDARDS AUSTRALIA

RECONFIRMATION

OF
AS 2001.2.3.1—2001
Methods of test for textiles
Method 2.3.1: Physical tests—Determination of maximum force and elongation at maximum force using the strip method

RECONFIRMATION NOTICE

Technical Committee TX-020 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 6 July 2016.

The following are represented on Technical Committee TX-020:

Ag Research
Australian Wool Processors Council
AWTA Textile Testing
Council of Textile and Fashion Industries of Australia
Drycleaning Institute of Australia
National Association of Testing Authorities Australia
RMIT University
The Textile Institute

NOTES

AS 2001.2.3.1—2001
ISO 13934-1:1999
Reconfirmed 2016

Australian Standard™

Methods of test for textiles

Method 2.3.1: Physical tests—Determination of maximum force and elongation at maximum force using the strip method

PREFACE

This Standard was prepared by the Standards Australia Committee TX-020, Testing of Textiles to supersede (in part) AS 2001.2.3—1988, *Methods of test for textiles*—Part 2: *Physical tests—Determination of breaking force and extension of textile fabric*. AS 2001.2.3.1—2001 and this Standard constitute the two methods of testing for the breaking force and extension of fabric.

The Standard is identical with and has been reproduced from ISO 13934-1:1999, *Textiles—Tensile properties of fabrics*—Part 1: *Determination of maximum force and elongation at maximum force using the strip method*.

The objective of this Standard is to provide manufacturers and testing bodies with a suitable test method for determining the maximum breaking force using the strip method.

The term 'informative' has been used in this Standard to define the application of the annex to which it applies. An 'informative' annex is only for information and guidance.

The major change from AS 2001.2.3—1988 is the separation of the strip and grab methods with the strip method now in AS 2001.2.3.1 and the grab method in AS 2001.2.3.2. It also differs from AS 2001.2.3—1988 in that it provides for a choice of gauge lengths and rate of extension which are likely to impact on results, but this may vary from one fabric construction to another. However, the majority of fabrics will be tested under similar conditions to those specified in AS 2001.2.3—1988, i.e. with a gauge length of 200 mm at a rate of extension of 100 mm/min. Another difference relates to the selection of pre-tension force that is now based on fabric mass instead of a percentage of the nominal breaking force.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number appears on the cover and title page while the International Standard number appears only on the cover.

(b) In the source text 'this part of EN ISO 13934' should read 'this Australian Standard'.

(c) A full point should be substituted for a comma when referring to a decimal marker.

AS 2193 *Methods for the calibration and grading of force measuring systems of testing machines* compares grades of Australian testing machines to that in ISO 10012-1. Australian Grade A is equivalent to ISO Class 1 and Grade B to Class 2. Clause 6.1.2 of this Standard requires that the Class of machine be reported in the test report. For Australian purposes, it would be advisable to also report the Grade.

References to International Standards should be replaced by references to Australian Standards, as follows:

Reference to International Standard		*Australian Standard*	
EN		AS	
20139	Textiles—Standard atmospheres for conditioning and testing (ISO 139:1973)	2001	Methods of test for textiles
		2001.1	Part 1: Conditioning procedures

EN		AS	
10002	Metallic materials—Tensile testing	2193	Methods for calibration and grading of force-measuring systems of testing machines
10002-2	Part 2: Verification of the force measuring system of the tensile testing machines		
30012	Quality assurance requirements for measuring equipment	3912	Quality assurance requirements for measuring equipment
30012-1	Part 1: Metrological confirmation system for measuring equipment (ISO 10012-1:1992)	3912.1	Part 1: Metrological confirmation system for measuring equipment (NZS 10012.1:1993 ISO 10012-1:1002)
ISO			
3696	Water for analytical laboratory use—Specification and test methods	2001	Methods of test for textiles
		2001.4.1	Part 4.1: Colourfastness tests—Definitions and general requirements

1 Scope

This part of EN ISO 13934 specifies a procedure to determine the maximum force and elongation at maximum force of textile fabrics using a strip method.

Note: Part 2 of EN ISO 13934 describes the method known as the grab method. For informative references see annex C.

The method is mainly applicable to woven textile fabrics. It can be applicable to fabrics produced by other techniques. It is not normally applicable to woven elastic fabrics, geotextiles, nonwovens coated fabrics, textile-glass woven fabrics and fabrics made from carbon fibres or polyolefin tape yarns (see annex C).

The method specifies the determination of the maximum force and elongation at maximum force of test specimens in equilibrium with the standard atmosphere for testing, and of test specimens in the wet state.

The method is restricted to the use of constant rate of extension (CRE) testing machines.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

EN 20139	Textiles - Standard atmospheres for conditioning and testing (ISO 139:1973)
ISO 3696	Water for analytical laboratory use - Specification and test methods
EN 10002-2	Metallic materials - Tensile testing - Part 2: Verification of the force measuring system of the tensile testing machines
EN 30012-1	Quality assurance requirements for measuring equipment - Part 1: Metrological confirmation system for measuring equipment (ISO 10012-1:1992)