STANDARDS AUSTRALIA

RECONFIRMATION

OF
AS 2001.2.8—2001
Methods of test for textiles
Method 2.8: Physical tests—Determination of tear force of fabrics using the ballistic pendulum method (Elmendorf)

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 2001.2.8—2001
ISO 13937-1:2000
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Australian Standard™

Methods of test for textiles

Method 2.8: Physical tests—Determination of tear force of fabrics using the ballistic pendulum method (Elmendorf)

PREFACE

This Standard was prepared by the Standards Australia Committee TX-020, Testing of Textiles to supersede AS 2001.2.8—1985, *Methods of test for textiles*—Part 2.8: *Physical tests—Determination of tear resistance of woven fabrics by the falling pendulum (Elmendorf) apparatus*.

The Standard is identical with and has been reproduced from ISO 13937-1:2000, *Textiles—Tear properties of fabrics*—Part 1: *Determination of tear force using the ballistic pendulum method (Elmendorf)*.

The objective of this Standard is to provide manufacturers and testing bodies with a suitable test method for determining the tear resistance of fabrics using a ballistic 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.

This edition of the Standard differs only in a minor way to AS 2001.2.8—1985. Annex A has been simplified by referencing adjustments and verification in the manufacturer's instruction manual.

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 13937-1' should read 'this Australian Standard'.

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

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

Reference to International Standard		*Australian Standard*	
ISO		AS	
139	Textiles—Standard atmospheres for conditioning and testing	2001 2001.1	Methods of test for textiles Part 1: Conditioning procedures
1974	Paper—Determination of tearing resistance (Elmendorf method)	—	
10012 10012-1	Quality assurance requirements for measuring equipment Part 1: Metrological confirmation system for measuring equipment	3912 3912.1	Quality assurance requirements for measuring equipment Part 1: Metrological confirmation system for measuring equipment

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NOTES

1 Scope

This part of EN ISO 13937 describes a method known as the ballistic pendulum (Elmendorf) method for the determination of tear force of textile fabrics. The method describes the measurement of the tear force required to propagate a single-rip tear of defined length from a cut in a fabric when a sudden force is applied.

The test is mainly applicable to woven textile fabrics. It may be applicable to fabrics produced by other techniques, e.g. to nonwovens (with the same under-mentioned restrictions as for the woven fabrics).

In general the test is not applicable to knitted fabrics and woven elastic fabrics. It is not suitable for highly anisotropic fabrics or loose fabrics where tear transfer from one direction to another direction of the fabric during the tear test is likely to occur.

NOTE 1: For tests using tensile-testing machines part 2 of EN ISO 13937 describes a single tear method known as the trouser test, part 3 the wing test and part 4 the tongue test method.

NOTE 2: For the ballistic pendulum method for coated fabrics see ISO 4674-2. For the trapezoidal test method, see ISO 9073-4 for nonwovens or ISO 4674 for coated fabrics.

2 Normative references

The following normative documents contain provisions through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 139 Textiles - Standard atmospheres for conditioning and testing

ISO 1974:1990 Paper - Determination of tearing resistance (Elmendorf method)

ISO 10012-1 Quality assurance requirements for measuring equipment - Part 1: Metrological confirmation system for measuring equipment