STANDARDS AUSTRALIA

RECONFIRMATION

OF
AS 2001.2.20—2004
Methods of test for textiles
Method 2.20: Physical tests—Determination of seam breaking force

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 2001.2.20—2004
ISO 13935-2:1999
Reconfirmed 2016

Australian Standard™

Methods of test for textiles

Method 2.20: Physical tests—Determination of seam breaking force

PREFACE

This Standard was prepared by the Standards Australia Committee TX-020, Testing of Textiles to supersede AS 2001.2.20—1986, *Methods of test for textiles,* Method 2.20: *Physical tests—Determination of seam breaking force*.

The Standard is identical with and has been reproduced from ISO 13935-2:1999, *Textiles—Seam tensile properties of fabrics and made-up textile articles*, Part 2: *Determination of maximum force to seam rupture using the grab method*.

The objective of this Standard is to provide manufacturers and testing bodies with a suitable test method for determining the maximum breaking seam breaking force of sewn seams using the grab 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 changes from AS 2001.2.20—1986 are the number of samples to be tested, the gauge length and the rate of extension. This method only specifies transverse testing. Longitudinal testing is no longer specified.

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 13935, should read 'this Australian Standard'.

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

(d) The length before seaming in Figure 1, position 3, should read 250 mm.

AS 2193, *Calibration and classification of force-measuring systems machines*, compares grades of Australian testing machines to those 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

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EN		AS	
10002	Metallic materials—Tensile testing	2193	Calibration and classification of force-measuring systems
10002-2	Part 2: Verification of the force measuring system of the tensile testing machines		
		AS/NZS ISO	
30012	Quality assurance requirements for measuring equipment	10012	Measurement management system—Requirements for measurement process and measuring equipment
30012-1	Part 1: Metrological confirmation system for measuring equipment (ISO 10012-1:1992)		

1 Scope

This part of EN ISO 13935 specifies methods for the determination of seam maximum force of sewn seams when the force is applied perpendicularly to the seam. This part of EN ISO 13935 describes the method known as the grab test.

Note : Part 1 of EN ISO 13935 describes the method known as the strip test. For informative references see annex B.

The method is mainly applicable to woven textile fabrics. It may 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 B).

The sewn fabrics may be obtained from previously sewn articles or may be prepared from fabric samples, as agreed by the parties interested in the results.

This method is applicable to straight seams only and not to curved seams.

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)
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)

3 Definitions

For the purposes of this part of EN ISO 13935 the following definitions apply:

3.1 Constant-rate-of-extension (CRE) testing machine

Tensile-testing machine provided with one clamp which is stationary and another clamp which moves with a constant speed throughout the test, the entire testing system being virtually free from deflection (EN ISO 13934-1).

3.2 Grab test

Tensile test in which only the centre part of the test specimen is gripped in the jaws of the testing machine (EN ISO 13934-2).

3.3 Maximum force at seam rupture

Maximum force recorded when a test specimen with a seam perpendicular to the direction of extension is taken to seam rupture during a tensile test under the specified conditions (EN ISO 13935-1).

