Irish Standard
I.S. EN ISO 13934-2:2014

Textiles - Tensile properties of fabrics - Part 2: Determination of maximum force using the grab method (ISO 13934-2:2014)

I.S. EN ISO 13934-2:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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English Version

Textiles - Tensile properties of fabrics - Part 2: Determination of maximum force using the grab method (ISO 13934-2:2014)

Textiles - Propriétés des étoffes en traction - Partie 2: Détermination de la force maximale par la méthode d'arrachement (Grab test) (ISO 13934-2:2014)

Textilien - Zugeigenschaften von textilen Flächengebilden - Teil 2: Bestimmung der Höchstzugkraft mit dem Grab-Zugversuch (ISO 13934-2:2014)

This European Standard was approved by CEN on 30 December 2013.

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Foreword

This document (EN ISO 13934-2:2014) has been prepared by Technical Committee ISO/TC 38 “Textiles” in collaboration with Technical Committee CEN/TC 248 “Textiles and textile products” the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2014, and conflicting national standards shall be withdrawn at the latest by August 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 13934-2:1999.

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Endorsement notice

The text of ISO 13934-2:2014 has been approved by CEN as EN ISO 13934-2:2014 without any modification.

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INTERNATIONAL STANDARD

ISO 13934-2

Second edition
2014-02-01

Textiles — Tensile properties of fabrics —

Part 2: Determination of maximum force using the grab method

Textiles — Propriétés des étoffes en traction —

Partie 2: Détermination de la force maximale par la méthode d'arrachement (Grab test)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 38, *Textiles*, Subcommittee SC 24, *Conditioning atmospheres and physical tests for textile fabrics*.

This second edition cancels and replaces the first edition (ISO 13934-2: 1999), of which it constitutes a minor revision.

ISO 13934 consists of the following parts, under the general title *Textiles — Tensile properties of fabrics*:

— *Part 1: Determination of maximum force and elongation at maximum force using the strip method*

— *Part 2: Determination of maximum force using the grab method*

Introduction

This part of ISO 13934 has been prepared in the context of several test methods for determination of certain mechanical properties of textiles using mainly tensile testing machines, e.g. tensile properties, seam tensile properties, tear properties, and seam slippage. The procedure for these standards agrees where appropriate. The results obtained by one of the methods should not be compared with those obtained by the other methods.

Textiles — Tensile properties of fabrics —

Part 2: Determination of maximum force using the grab method

1 Scope

This part of ISO 13934 specifies a procedure for the determination of the maximum force of textile fabrics known as the grab test.

NOTE ISO 13934-1 describes the method known as the strip test.

The method is mainly applicable to woven textile fabrics including fabrics which exhibit stretch characteristics imparted by the presence of an elastomeric fibre and mechanical or chemical treatment. It can be applicable to fabrics produced by other techniques. It is not normally applicable to geotextiles, nonwovens, coated fabrics, textile-glass woven fabrics, and fabrics made from carbon fibres or polyolefin tape yarns.

The method specifies the determination of the 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 documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 139, *Textiles — Standard atmospheres for conditioning and testing*

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 7500-1, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions in ISO 13934 and the following 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

[SOURCE: ISO 13934-1:2013, 3.1]

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