

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

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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)

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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of an identical text or by endorsement, at the latest by August 2014, and conflicting national standards shall be withdrawn at the latest by August 2014.

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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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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