



SLOVENSKI STANDARD
SIST EN 15586:2009

01-januar-2009

Tekstilije - Metode preskušanja lastnosti vlaken tekstilij: preskus z drgnjenjem

Textiles - Methods of testing the fibre proof properties of fabrics: Rubbing test

Textilien - Verfahren zur Prüfung der Faserdichtigkeit von Geweben: Reibverfahren

Textiles - Méthodes d'essai des tissus pour l'étanchéité aux fibres: essai par frottement

Ta slovenski standard je istoveten z: EN 15586:2008

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ICS:

59.060.01 Tekstilna vlakna na splošno Textile fibres in general

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EUROPEAN STANDARD

EN 15586

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2008

ICS 59.040

English Version

Textiles - Methods of testing the fibre proof properties of fabrics: Rubbing test

Textiles - Méthodes d'essai des tissus pour l'étanchéité aux
fibres: essai par frottement

Textilien - Verfahren zur Prüfung der Faserdichtigkeit von
Gewebe: Reibverfahren

This European Standard was approved by CEN on 25 April 2008.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This document (EN 15586:2008) has been prepared by 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of an identical text or by endorsement, at the latest by November 2008, and conflicting national standards shall be withdrawn at the latest by November 2008.

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.

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EN 15586:2008 (E)

1 Scope

This European Standard describes a method for the determination of the fibre-proof properties of a fabric using a rubbing apparatus, when the fabric is tested against the filling material (either loose fibre or wadding) that will be used in the final product. This European Standard is applicable to all types of bedding articles, clothing and quilted products filled with textile materials.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 12132-1, *Feather and down — Methods of testing the down proof properties of fabrics — Part 1: Rubbing test*

EN ISO 5084, *Textiles — Determination of thickness of textiles and textile products (ISO 5084:1996)*

EN ISO 139, *Textiles — Standard atmospheres for conditioning and testing (ISO 139:2005)*

ISO 4915, *Textiles — Stitch types — Classification and terminology*

3 Terms and definitions

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For the purposes of this document, the following terms and definitions apply.

3.1

filling material

loose fibres or a loosely cohering sheet of fibres used for wadding and padding

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3.2

wadding

loosely cohering sheet of fibres, which may be bonded, used for padding, upholstery, stuffing, packing or similar purposes

4 Principle

A cushion of specified dimensions is made from the fabric to be tested and filled with a given amount of the loose fibres or wadding that will be used in the final product. The cushion is mounted in an apparatus and undergoes a specified number of rubbings. The number of fibres that have protruded from (or passed through) the fabric is counted.

5 Apparatus

5.1 Rubbing apparatus

The same apparatus as used for testing the down proof properties is used. The apparatus is described in EN 12132-1.

5.2 Thickness tester

A thickness tester according to EN ISO 5084 with a presser-foot area of (50 ± 5) cm² and a pressure of $(2 \pm 0,02)$ kPa shall be used.

5.3 UV-light source

5.4 Magnification device

Magnifying glass or microscope, e.g. 8X magnification

6 Materials

6.1 Protective fabric (for wadding test)

Fabric to contain the filling fibres when testing wadding. The protective fabric must be fibre proof when tested according to 8.1.

6.2 Additional fibres (for wadding test)

Loose crimped fibres used for wadding and padding.

7 Atmosphere for conditioning and testing

Conditioning of test specimens and testing is carried out in an atmosphere according to EN ISO 139.

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8 Preparation of test cushions

8.1 Specimens for testing loose fibres as filling material

At least two specimens are taken of the fabric each measuring (140 ± 5) mm \times (420 ± 10) mm, see Figure 1. One specimen is taken with its longer side in the length (warp) direction and one in the width (weft) direction. The right side is marked on fabric specimen. From these specimens two test cushions are sewn (with lockstitch according to ISO 4915, stitch type 301 with (10 ± 1) stitches per cm). Stitch length in the seam is 1 mm.

Dimensions in millimetres

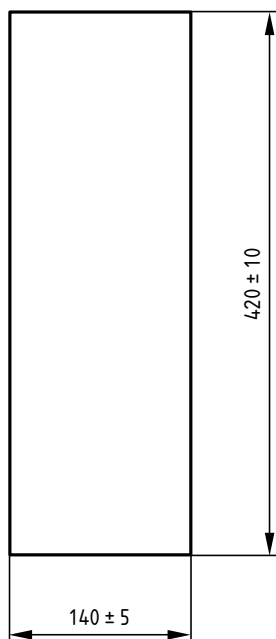
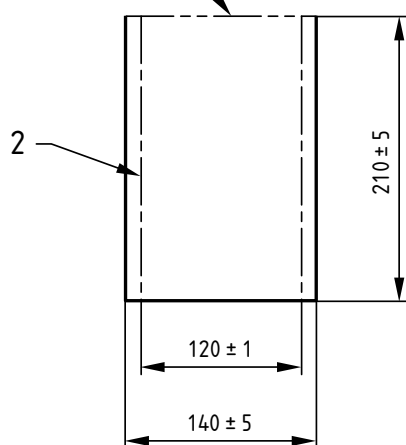


Figure 1 — Test specimens for loose fibres

Fold the fabric in the middle, parallel to the short side, with the fabric face to the inside and sew the longer sides, (120 ± 1) mm apart, see Figure 2. Then turn inside out.

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Dimensions in millimetres



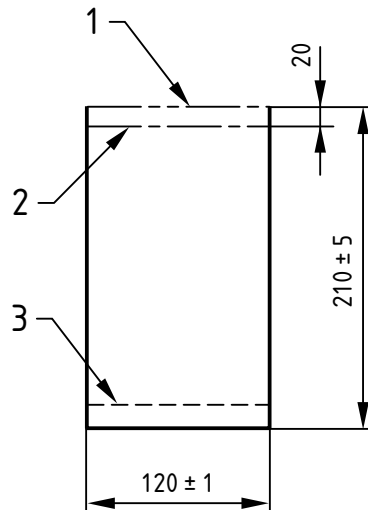
Key

- 1 Folded
- 2 Seam

Figure 2 — Test specimens for loose fibres — Folded reverse side

Sew one short side, 20 mm from the edge. Mark lines parallel to short sides (170 ± 1) mm apart. Sew the short side from the folded edge, leaving the other side open for filling, see Figure 3.

Dimensions in millimetres



Key

- 1 Folded
- 2 Seam
- 3 Marked

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Figure 3 — Test specimens for loose fibres — Folded right side

Fill the test specimen with a quantity of loose fibre, in order to obtain a well-filled cushion. Fix the opening with a clip on the marked line.

Measure the thickness of the cushion with the pressure foot: 2 kPa, 50 cm² (see 5.2). Load the specimen and press the foot down manually until the cushion has a height of about 25 mm. Release the manual pressure and allow the cushion to reach its stable position under the pressure due to the thickness tester. Note the height.

Repeat the procedure to see that the height is constant.

The height should be between 36 mm and 39 mm if the filling is sufficient. If not, adjust it by removing or adding more filling material. The filling material shall be evenly distributed inside the cushion.

When correct value is obtained, sew together the opening, see Figure 4.