

## **Feather and down - Methods of testing the down proof properties of fabrics - Part 1: Rubbing test**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12132-1:2001 sisaldab Euroopa standardi EN 12132-1:1998 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.06.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12132-1:2001 consists of the English text of the European standard EN 12132-1:1998.</p> <p>This document is endorsed on 18.06.2001 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>This European Standard describes a method for the determination of down and/or feather penetration through the primary tick fabric of a specimen containing feather and/or down filling using a rubbing apparatus. The number of particles which have passed or protruded from the fabric is counted.</p>	<p><b>Scope:</b></p> <p>This European Standard describes a method for the determination of down and/or feather penetration through the primary tick fabric of a specimen containing feather and/or down filling using a rubbing apparatus. The number of particles which have passed or protruded from the fabric is counted.</p>
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ICS 59.040

**Võtmesõnad:** feathers, friction, leak tests, procedure, specimen preparation, stuffings, testing, testing conditions, woven fabrics

ICS 59.040

Descriptors: Feather, down, fabrics, down-proof properties, testing.

**English version**

**Feather and down – Methods of testing the  
down-proof properties of fabrics**

**Part 1: Rubbing test**

Plumes et duvets – Méthodes  
d'essais des tissus pour l'étanchéité  
aux plumes et duvets – Partie 1:  
Essai par frottement

Federn und Daunen – Verfahren für  
die Prüfung der Daunendichtigkeit  
von Geweben – Teil 1: Simulierte  
Kissenbeanspruchung

This European Standard was approved by CEN on 1998-07-24.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

**Central Secretariat: rue de Stassart 36, B-1050 Brussels**

## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 222 "Feather and down as filling material for any article, as well as finished articles filled with feather and down", the secretariat of which is held by UNI.

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 February 1999, and conflicting national standards shall be withdrawn at the latest by February 1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This standard describes a method for the determination of down and/or feather penetration through the primary tick fabric of a specimen containing feather and/or down filling using a rubbing apparatus.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 20139 Textiles - Standard atmospheres for conditioning and testing (ISO 139 : 1973)

EN 20187 Paper, board and pulps - Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples (ISO 187 : 1990)

## 3 Principle

A cushion of specified dimensions is made from the fabric to be tested for its downproof properties and filled with a given amount of feather and down material or its mixtures. The cushion is mounted in an apparatus and undergoes a specified number of rubbings. The number of down and/or feather particles which have passed or protruded from the primary tick fabric is counted.

## 4 Apparatus

### 4.1 Rubbing apparatus

The apparatus (see figure 1) consists of two clamps A and B, in which the test cushion is secured. Clamp A is fixed to the bottom plate. Clamp B is fastened to a wheel, C, which enables clamp B to rotate in an ellipse-like path. The clamps are spaced  $(44 \pm 1)$  mm apart. The distance between the centre of the wheel and the attachment point of clamp B is  $(25 \pm 0,5)$  mm.

Other dimensions are shown in figure 2.

The wheel shall rotate at 135 r/min and the apparatus shall be provided with a revolution counter.

### 4.2 Plastic bag

The bag shall consist of low density polyethylene (PE-LD), thickness  $(25 \pm 1)$   $\mu\text{m}$ , and be without a pleat.

The bag shall have the following inner dimensions:

width  $(150 \pm 10)$  mm  
length  $(240 \pm 10)$  mm

### 4.3 Balance

The balance shall be accurate to within 0,1 g.