

Textiles - Determination of fabric propensity to surface pilling, fuzzing or matting - Part 4: Assessment of pilling, fuzzing or matting by visual analysis (ISO 12945-4:2020)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 12945-4:2020 sisaldab Euroopa standardi EN ISO 12945-4:2020 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 12945-4:2020 consists of the English text of the European standard EN ISO 12945-4:2020.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 18.11.2020.	Date of Availability of the European standard is 18.11.2020.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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English Version

**Textiles - Determination of fabric propensity to surface pilling, fuzzing or matting - Part 4: Assessment of pilling, fuzzing or matting by visual analysis (ISO 12945-4:2020)**

Textiles - Détermination de la propension au boulochage, à l'ébouriffage ou au moutonnement des étoffes en surface - Partie 4: Évaluation du boulochage, de l'ébouriffage et du moutonnement par analyse visuelle (ISO 12945-4:2020)

Textilien - Bestimmung der Neigung von textilen Flächengebilden zur Pillbildung, Flusenbildung oder der Mattierung auf der Oberfläche - Teil 4: Bewertung der Pillbildung, Flusenbildung oder Mattierung durch visuelle Analyse (ISO 12945-4:2020)

This European Standard was approved by CEN on 7 September 2020.

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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-CENELEC Management Centre has the same status as the official versions.

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## European foreword

This document (EN ISO 12945-4:2020) 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 May 2021, and conflicting national standards shall be withdrawn at the latest by May 2021.

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

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## Endorsement notice

The text of ISO 12945-4:2020 has been approved by CEN as EN ISO 12945-4:2020 without any modification.

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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](http://www.iso.org/directives)).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 24, *Conditioning atmospheres and physical tests for textile fabrics*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 248, *Textiles and textile products*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all parts in the ISO 12945 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# Textiles — Determination of fabric propensity to surface pilling, fuzzing or matting —

## Part 4:

## Assessment of pilling, fuzzing and matting by visual analysis

### 1 Scope

This document specifies a method for the visual assessment of pilling, fuzzing, and matting respectively of textile fabrics. This method is applicable to most of woven and knitted fabrics, including napped fabrics (fleeces, inlay fabrics).

### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 3668, *Paints and varnishes — Visual comparison of colour of paints*

ISO 12945-1, *Textiles — Determination of fabric propensity to surface pilling, fuzzing or matting — Part 1: Pilling box method*

ISO 12945-2, *Textiles — Determination of fabric propensity to surface pilling, fuzzing or matting — Part 2: Modified Martindale method*

ISO 12945-3, *Textiles — Determination of fabric propensity to surface pilling, fuzzing or matting — Part 3: Random tumble pilling method*

### 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

#### 3.1

##### **pill**

entangling of fibres into balls (pills) which stand proud of the fabric and are of such density that light will not penetrate and will cast a shadow

Note 1 to entry: This change can occur during washing, dry cleaning, and/or wearing.

#### 3.2

##### **pilling**

generation of *pills* ([3.1](#)) over the surface of the fabric