SLOVENSKI STANDARD
SIST EN ISO 12945-3:2021

01-januar-2021

Nadomešča:
SIST EN ISO 12945-3:2014

Tekstilije - Ugotavljanje nagnjenja tekstilij k površinskemu pilingu, razvlaknjanju ali zapletanju - 3. del: Naključna metoda s pilingom bobna (ISO 12945-3:2020)

Textiles- Determination of the fabric propensity to surface pilling, fuzzing or matting - Part 3: Random tumble pilling method (ISO 12945-3:2020)

Textilien - Bestimmung der Neigung von textilen Flächengebilden zur Pillbildung, Flusenbildung oder der Mattierung auf der Oberfläche - Teil 3: Random-Tumble-Pilling-Verfahren (ISO 12945-3:2020)

Textiles - Détermination de la propension au boulochage, à l'ébouriffage ou au moutonnement des étoffes en surface - Partie 3: Méthode de boulochage par projections aléatoires dans une chambre cylindrique (ISO 12945-3:2020)

Ta slovenski standard je istoveten z: **EN ISO 12945-3:2020**

ICS:

59.080.01	Tekstilije na splošno	Textiles in general

SIST EN ISO 12945-3:2021 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 12945-3

November 2020

ICS 59.080.01

Supersedes EN ISO 12945-3:2014

English Version

Textiles - Determination of fabric propensity to surface pilling, fuzzing or matting - Part 3: Random tumble pilling method (ISO 12945-3:2020)

Textiles - Détermination de la propension des étoffes au boulochage, à l'ébouriffage ou au moutonnement en surface - Partie 3: Méthode d'essai de boulochage par chocs aléatoires dans une chambre cylindrique (ISO 12945-3:2020)

Textilien - Bestimmung der Neigung von textilen Flächengebilden zur Pillbildung, Flusenbildung oder der Mattierung auf der Oberfläche - Teil 3: Random-Tumble-Pilling-Verfahren (ISO 12945-3:2020)

This European Standard was approved by CEN on 25 August 2020.

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 CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword

This document (EN ISO 12945-3:2020) 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.

This document supersedes EN ISO 12945-3:2014.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 12945-3:2020 has been approved by CEN as EN ISO 12945-3:2020 without any modification.

INTERNATIONAL STANDARD

ISO 12945-3

Second edition
2020-10

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

Part 3: Random tumble pilling method

Textiles — Détermination de la propension des étoffes au boulochage, à l'ébouriffage ou au moutonnement en surface —
Partie 3: Méthode d'essai de boulochage par chocs aléatoires dans une chambre cylindrique

Reference number
ISO 12945-3:2020(E)

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

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 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.

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).

This second edition cancels and replaces the first edition (ISO 12945-3:2000), which has been technically revised.

The main changes compared to the previous edition are as follows:

— in Clause 10, visual assessment of pilling, fuzzing, and matting have been carried out according to ISO 12945-4.

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.

Introduction

Pills are formed when fibres on a fabric surface “tease out” and become entangled during wear. Such surface deterioration is generally undesirable, but the degree of consumer tolerance for a given level of pilling will depend on the garment type and fabric end use.

Generally, the level of pilling which develops is determined by the rates of the following parallel processes:

a) fibre entanglement leading to pill formation;

b) development of more surface fibre;

c) fibre and pill wear-off.

The rates of these processes depend on the fibre, yarn and fabric properties. Examples of extreme situations are found in fabrics containing strong fibres versus fabric containing weak fibres. A consequence of the strong fibre is a rate of pill formation that exceeds the rate of wear-off. This results in an increase of pilling with an increase of wear. With a weak fibre the rate of pill formation competes with the rate of wear-off. This would result in a fluctuation of pilling with an increase of wear. There are other constructions that the surface fibre wear-off occurs before pill formation. Each of these examples demonstrates the complexity of evaluating the surface change on different types of fabric.

The ideal laboratory test would accelerate the wear processes a), b), and c) by exactly the same factor and would be universally applicable to all fibre, yarn, and fabric types. No such test has been developed. However, a test procedure has been established in which fabrics can be ranked in the same order of pilling, fuzzing, and matting propensity as is likely to occur in end use wear.

Particular attention is drawn to Annex A which gives advice on the maintenance and checking of the apparatus and liners. It is recommended that Annex A be studied prior to carrying out the procedure.

Annex C gives rationale especially regarding the testing of napped fabrics.