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BSI Standards Publication

Resilient, textile and laminate floor coverings — Castor chair test

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National foreword

This British Standard is the UK implementation of EN ISO 4918:2021. It is identical to ISO 4918:2016, incorporating amendment 1:2018. It supersedes BS EN 425:2002, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to ISO text carry the number of the ISO amendment. For example, text altered by ISO amendment 1 is indicated by **A1** **A1**.

The UK participation in its preparation was entrusted to Technical Committee PRI/3, Textile floor coverings.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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English Version

Resilient, textile and laminate floor coverings - Castor chair test (ISO 4918:2016, including Amd 1:2018)

Revêtements de sol textiles, résilients ou stratifiés - Essai à l'appareil à roulettes (ISO 4918:2016, y compris Amd 1:2018)

Elastische, textile und Laminat-Bodenbeläge - Stuhlrollenversuch (ISO 4918:2016, einschließlich Amd.1:2018)

This European Standard was approved by CEN on 19 March 2021.

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

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European foreword

The text of ISO 4918:2016, including Amd 1:2018 has been prepared by Technical Committee ISO/TC 219 "Floor coverings" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 4918:2021 by Technical Committee CEN/TC 134 "Resilient, textile and laminate floor coverings" the secretariat of which is held by NBN.

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of an identical text or by endorsement, at the latest by September 2021, and conflicting national standards shall be withdrawn at the latest by September 2021.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 425:2002.

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 4918:2016, including Amd 1:2018 has been approved by CEN as EN ISO 4918:2021 without any modification.

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Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	1
5 Apparatus	2
5.5.1 General.....	3
6 Materials	5
7 Sampling	5
7.1 Textile floor coverings.....	5
7.2 Resilient floor covering.....	6
7.3 Laminate floor coverings.....	6
8 Conditioning	7
8.1 Textile floor coverings.....	7
8.2 Resilient and laminate floor coverings.....	7
9 Procedure	7
9.1 Textile floor coverings.....	7
9.1.1 General.....	7
9.1.2 Mounting of the specimens.....	7
9.1.3 Verifications of the castors.....	7
9.1.4 Preparing of the apparatus.....	8
9.1.5 Test procedures for textile floor coverings.....	8
9.2 Resilient and laminate floor coverings.....	9
9.2.1 General.....	9
9.2.2 Mounting of the specimen.....	9
9.2.3 Verification of the castors.....	10
9.2.4 Preparing the apparatus.....	10
9.2.5 Test procedure for resilient and laminate floor coverings.....	10
10 Assessment	10
10.1 Textile floor coverings.....	10
10.1.1 General.....	10
10.1.2 Test A — Structural integrity assessment.....	11
10.1.3 Test A — Appearance retention assessment.....	11
10.1.4 Test B — Colour change assessment.....	11
10.1.5 Test C — Structural integrity assessment.....	11
10.2 Resilient floor coverings.....	11
10.2.1 Resilient floor covering with click joints for floating installation.....	11
10.3 Laminate floor coverings.....	11
11 Calculations and expression of results	12
11.1 Textile floor coverings.....	12
11.1.1 Optional results for textile floor coverings.....	12
11.2 Resilient floor coverings.....	12
11.3 Laminate floor coverings.....	12
12 Test report	12

This is a preview of "BS EN ISO 4918:2021". [Click here to purchase the full version from the ANSI store.](#)

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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 219, *Floor coverings*.

This second edition cancels and replaces the first edition (ISO 4918:2009), which has been technically revised.

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Resilient, textile and laminate floor coverings — Castor chair test

1 Scope

This International Standard specifies methods for determining the change of appearance and stability of a textile floor covering or any damage caused by detachment of layers, opening of joints, or crazing of a resilient or laminate floor covering under the movement of a castor chair.

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 1957, *Machine-made textile floor coverings — Selection and cutting of specimens for physical tests*

ISO 2424, *Textile floor coverings — Vocabulary*

ISO 9405, *Textile floor coverings — Assessment of changes in appearance*

CEN/TS 16354, *Laminate floor coverings — Underlays — Specification, requirements and test methods*

EN 12466, *Resilient floor coverings — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 2424 and EN 12466 apply.

4 Principle

A floor covering, including one or more joints, treated or welded where necessary, is submitted for a prescribed number of cycles to the action of three castors. The castors move in epicyclical paths with multiple changes of direction, stops and starts, and the frequency of passage varies from area to area.

For textile floor coverings, three different assessment methods are specified:

- a) the change in appearance of a textile floor covering is assessed after 5 000 cycles and 25 000 cycles, in accordance with ISO 9405 (Test A),
- b) the change in colour is assessed by means of grey scales after 750 cycles (Test B),
- c) the extent of deterioration of the specimen is assessed after 10 000 cycles or 25 000 cycles (Test C).

For resilient and laminate floor coverings, any damage caused by detachment of layers, opening of joints, or crazing of the specimen is assessed.