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BSI Standards Publication

**Resilient floor coverings — Determination
of dimensional stability and curling
after exposure to heat**

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National foreword

This British Standard is the UK implementation of EN ISO 23999:2021. It is identical to ISO 23999:2021. It supersedes BS EN ISO 23999:2018, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PRI/60, Resilient and Laminate Floor Coverings.

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

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Resilient floor coverings - Determination of dimensional stability and curling after exposure to heat (ISO 23999:2021)

Revêtements de sol résilients - Détermination de la stabilité dimensionnelle et de l'incurvation après exposition à la chaleur (ISO 23999:2021)

Elastische Bodenbeläge - Bestimmung der Maßänderung und Schüsselung nach Wärmeeinwirkung (ISO 23999:2021)

This European Standard was approved by CEN on 20 September 2021.

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European foreword

This document (EN ISO 23999:2021) has been prepared by Technical Committee ISO/TC 219 "Floor coverings" in collaboration with Technical Committee CEN/TC 134 "Resilient, textile, laminate and modular mechanical locked 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of an identical text or by endorsement, at the latest by May 2022, and conflicting national standards shall be withdrawn at the latest by May 2022.

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 23999:2018.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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Endorsement notice

The text of ISO 23999:2021 has been approved by CEN as EN ISO 23999:2021 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).

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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.

This document was prepared by Technical Committee ISO/TC 219, *Floor coverings*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 134, *Resilient, textile and laminate floor coverings*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 23999:2018), which has been technically revised.

The main changes are as follows:

- cross-references within the document have been updated;
- update to the dimensional stability and curling calculation sections of the method;
- update of [Annex A](#) with more detailed calculation.

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.

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Resilient floor coverings — Determination of dimensional stability and curling after exposure to heat

1 Scope

This document specifies a method for determining dimensional stability and curling of resilient floor coverings, in the form of sheets, tiles or planks after exposure to heat.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminology 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

dimensional stability

ability of a resilient floor covering to retain its original dimensions after exposure to heat, under specified conditions

3.2

curling

vertical deformation appearing on the specimen after exposure to a heat treatment, under specified conditions

3.3

domed material

area of specimen that does not lie flat against support plate when centred

4 Principle

4.1 Dimensional stability

The relative change in distance between marks or a specific location on a test specimen is measured before and after exposure to a heat treatment, under specified conditions. In the case of tiles and planks, measurements may be made using a block and dial gauge assembly.

4.2 Curling

The vertical deformations are measured in the test specimen after the specified heat treatment.

Test specimens are placed in an oven at an elevated temperature, after which curling and dimensional stability are determined. In the case of domed material or where material exhibits negative curling, turn the test specimen over to measure inverted or with the back of the sample facing up. Measure curling and mark appropriately as negative curling.