



# FINAL DRAFT International Standard

## ISO/FDIS 23999

### Resilient floor coverings — Determination of dimensional stability and curling (vertical deformation) after exposure to heat

*Revêtements de sol résilients — Détermination de la stabilité dimensionnelle et de l'incurvation (déformation verticale) après exposition à la chaleur*

ISO/TC 219

Secretariat: **NBN**

Voting begins on:  
**2025-08-27**

Voting terminates on:  
**2025-10-22**

Document Preview

ISO/FDIS 23999

<https://standards.iteh.ai/catalog/standards/iso/0dced840-3c5d-48b7-86e2-fb8b81347301/iso-fdis-23999>

**ISO/CEN PARALLEL PROCESSING**

RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STANDARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.

iTeh Standards  
(<https://standards.iteh.ai>)  
Document Preview

ISO/FDIS 23999

<https://standards.iteh.ai/catalog/standards/iso/0dced840-3c5d-48b7-86e2-fb8b81347301/iso-fdis-23999>



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2025

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

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

Published in Switzerland

# Contents

Page

<b>Foreword</b>	<b>iv</b>
<b>1 Scope</b>	<b>1</b>
<b>2 Normative references</b>	<b>1</b>
<b>3 Terms and definitions</b>	<b>1</b>
<b>4 Principle</b>	<b>2</b>
4.1 General	2
4.2 Dimensional stability	2
4.3 Curling (vertical deformation)	2
<b>5 Apparatus</b>	<b>2</b>
5.1 Oven	2
5.2 Support plates	3
<b>6 Measuring devices</b>	<b>3</b>
6.1 Measurement devices for determination of curling (vertical deformation)	3
6.2 Measurement devices for determination of linear dimension changes	3
6.2.1 General	3
6.2.2 Scoring device	3
6.2.3 Rigid steel plate	3
6.2.4 Block and dial gauge apparatus (for tiles and planks)	4
<b>7 Test specimens</b>	<b>6</b>
7.1 Specimen preparation from sheet or roll material	6
7.2 Specimen preparation from tiles and planks	8
<b>8 Conditioning</b>	<b>8</b>
<b>9 Test procedure</b>	<b>8</b>
9.1 Initial measurement	8
9.1.1 Curling (vertical deformation)	8
9.1.2 Linear dimensions	9
9.2 Heat exposure	10
9.3 Reconditioning	10
9.4 Final measurement	10
9.4.1 Curling (vertical deformation)	10
9.4.2 Linear dimensions	10
<b>10 Calculation and expression of results</b>	<b>11</b>
10.1 Curling (vertical deformation)	11
10.2 Dimensional change	11
<b>11 Test report</b>	<b>11</b>
<b>Annex A (informative) Measurement of dimensional change due to heat</b>	<b>13</b>
<b>Annex B (informative) Calculation and expression of results</b>	<b>14</b>

## 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 document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see <http://www.iso.org/directives>).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <http://www.iso.org/patents>. ISO shall not be held responsible for identifying any or all such patent rights.

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 <http://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, laminate and modular mechanical locked floor coverings*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 23999:2021), which has been technically revised.

The main changes are as follows:

- revision of terms and definitions;
- clarification on the deviation between devices used for either sheet or roll, or both, materials and rectangular shaped elements (squared tiles or long panels);
- inclusion of an explanation on the use of the so called “block and dial gauge apparatus” and minor changes to the figures and a new figure was added;
- inclusion of description of the preparation distinguishing sheet, roll materials and rectangular shaped elements (squared tiles or long panels);
- detailed calculation and expression of results can be found in new [Annex B](#).

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 <http://www.iso.org/members.html>.