



**International
Standard**

ISO 8543

**Textile floor coverings — Methods
for determination of mass**

*Revêtements de sol textiles — Méthodes de détermination de la
masse*

**Third edition
2020-06**

**Corrected version
2026-04**

Sample Document

get full document from standards.iteh.ai

Sample Document

get full document from standards.iteh.ai



COPYRIGHT PROTECTED DOCUMENT

© ISO 2020

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
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Atmosphere for conditioning and testing	2
5 Number of specimens	2
6 Determination of total mass per unit area	2
6.1 General	2
6.2 Principle	2
6.3 Apparatus	2
6.4 Specimens	2
6.5 Preparation of specimens	3
6.6 Procedure	3
6.7 Expression of results	3
6.8 Test report	3
7 Determination of total pile mass per unit area	3
7.1 General	3
7.2 Principle	4
7.3 Apparatus	4
7.4 Specimens	4
7.5 Procedure	4
7.5.1 Textile floor covering	4
7.5.2 Artificial turf	4
7.6 Expression of results	5
7.6.1 For textile floor coverings	5
7.6.2 For artificial turf	5
7.7 Test report	5
8 Determination of mass of pile per unit area above the substrate	6
8.1 General	6
8.2 Principle	6
8.3 Apparatus	6
8.4 Specimens	6
8.5 Preparation of specimens	6
8.6 Procedure	6
8.7 Expression of results	7
8.8 Test report	7
9 Calculation of measured surface pile density and measured pile fibre volume ratio	8
9.1 General	8
9.2 Principle	8
9.3 Apparatus	8
9.4 Specimens	8
9.5 Preparation of specimens	8
9.6 Procedure	8
9.7 Expression of results	8
9.8 Test report	10

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 219, *Floor coverings*.

This third edition cancels and replaces the second edition (ISO 8543:1998), which has been technically revised.

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

- clarification of method in the case of artificial turf products.

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.

This corrected version of ISO 8543:2020 incorporates the following corrections:

- correction of text in [Clause 5](#);
- correction of reading resolution and precision in [6.3.3](#);
- correction of reading resolution and precision in [7.5.2](#);
- correction of variables table in [7.6.2](#).

Textile floor coverings — Methods for determination of mass

1 Scope

This document specifies methods for the determination of the total mass per unit area, total pile mass per unit area, and mass of pile per unit area above the substrate, and for the calculation of measured surface pile density and measured pile fibre volume ratio of textile floor coverings.

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 139, *Textiles — Standard atmospheres for conditioning and testing*

ISO 1763, *Textile floor coverings — Determination of number of tufts and/or loops per unit length and per unit area*

ISO 1765, *Machine-made textile floor coverings — Determination of thickness*

ISO 1766, *Textile floor coverings — Determination of thickness of pile above the substrate*

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

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

constant mass

mass attained when successive weighings at hourly intervals over a period of 3 h do not vary by more than 1 %

3.2

total pile mass per unit area

mass of the pile yarn in a unit area, including that forming the base of the tufts or held in the substrate but excluding any backing compound adhering to the pile yarn, determined under specified conditions

Note 1 to entry: For the purpose of this document, the determination is carried out in equilibrium with the standard atmosphere for conditioning and testing described in [Clause 4](#).

3.3

measured surface pile density

ratio of mass to volume of the pile above the substrate measured under a pressure of 2,0 kPa

Note 1 to entry: 1 kPa = 10³ N/m².