INTERNATIONAL STANDARD

ISO 12625-18

First edition
2022-10

Tissue paper and tissue products —

Part 18: Determination of surface friction

Papier tissue et produits tissue —

Partie 18: Détermination du frottement superficiel

Reference number
ISO 12625-18:2022(E)

© ISO 2022



COPYRIGHT PROTECTED DOCUMENT

© ISO 2022

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

© ISO 2022 – All rights reserved

Contents

Page

Foreword ... **iv**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions ... **1**

4 Principle ... **1**

5 Apparatus ... **2**
5.1 Friction-testing apparatus ... 2
5.2 Stylus ... 2
5.3 Drive unit ... 2
5.4 Specimen holder ... 2
5.4.1 Base plate ... 2
5.4.2 Rectangular frame ... 2

6 Sampling ... **3**

7 Conditioning of test pieces ... **3**

8 Preparation of the test pieces ... **3**
8.1 General ... 3
8.2 Number and dimensions ... 3

9 Test procedure ... **4**

10 Calculation and expression of the results ... **4**
10.1 General ... 4
10.2 Reporting the results ... 5
10.2.1 $\bar{\mu}$ and M ... 5
10.2.2 Standard deviation and coefficient of variation (COV) ... 5

11 Test report ... **5**

Annex A (informative) **Measurement principle of surface friction** ... **6**

Annex B (informative) **Precision data** ... **9**

Bibliography ... **11**

© ISO 2022 – All rights reserved

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 6, *Paper, board and pulps*, Subcommittee SC 2, *Test methods and quality specifications for paper and board*.

A list of all parts in the ISO 12625 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.

© ISO 2022 – All rights reserved

Tissue paper and tissue products —

Part 18:
Determination of surface friction

1 Scope

This document specifies a test method for the determination of the surface friction of tissue paper and tissue products using a contact-type surface tester.

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 186, *Paper and board — Sampling to determine average quality*

ISO 187, *Paper, board and pulps — Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples*

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 https://www.electropedia.org/

3.1
coefficient of friction
COF
μ
ratio of the frictional force resisting movement of the surface being tested to the contact force applied normal to that surface (stylus weight) when tested under specified conditions

Note 1 to entry: See Formula (1).

4 Principle

A stylus is applied on a test piece with a contact force of 50 mN. Friction profiles of coefficient of friction against the scan length are generated as the sample plate travels past the stylus at a constant speed of 1 mm/s over a distance of 30 mm. From the friction profile, average of COF and mean deviation are calculated.

Precision data are available in Annex B.

© ISO 2022 – All rights reserved